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TESTING THE MEDIATING ROLE OF ETHICAL CLIMATE IN THE RELATIONSHIP BETWEEN ETHICAL LEADERSHIP AND ORGANIZATIONAL EXCELLENCE: A HUMAN RESOURCE MANAGEMENT APPROACH

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Abstract. The study examines how ethical leadership relates to organizational excellence in a university setting and tests the mediating role of ethical climate in this relationship, from a human resource management perspective in which immediate managers are the point at which HR policy becomes day-to-day experience for academic and administrative staff. A descriptive-analytical design was used. Data were collected through an electronic and paper questionnaire (59 items) completed by 99 academic and administrative staff at the college, and analyzed with descriptive statistics, one-sample t-tests, Pearson correlations, multiple regression, and second-order PLS-SEM. The measurement model showed adequate composite reliability and convergent validity for ethical leadership and organizational excellence, whereas the average variance extracted for ethical climate (0.394) fell below the acceptable threshold; discriminant validity held among the three main constructs, but the sub-dimensions within each construct overlapped considerably. Perceived ethical leadership was high (mean = 3.76, above the 3.40 threshold), whereas perceived organizational excellence (3.38) could not be shown to exceed that threshold. All twenty-eight dimension-level correlations were positive and significant, and ethical leadership predicted organizational excellence ($\beta = 0.592$, $p < 0.001$, $R^2 = 0.350$). When ethical climate was introduced, mediation was not supported: the path from ethical leadership to ethical climate was not significant ($\beta = 0.142$, 95% CI: −0.213 to 0.443), nor was the indirect effect (0.033, 95% CI: −0.016 to 0.126); the direct effect remained significant ($\beta = 0.557$), and ethical climate had a weak positive effect on organizational excellence ($\beta = 0.231$). Because of the overlap among dimensions, dimension-level results are exploratory. The study offers early evidence from an Iraqi public university and tests a mediation model that the data did not support. Strengthen ethical leadership practices collectively among immediate leaders, work to raise perceived organizational excellence (particularly reputation and beneficiaries' confidence in the college's outputs), and re-test the model on larger samples in more than one university, measuring ethical climate at department or unit level with a scale whose validity has been reviewed.

Keywords: Ethical Leadership; Organizational Excellence; Human Resource Management; Immediate Managers; Ethical Climate; Employee Excellence; University Institutions

Introduction

Higher education institutions, like other organizations, face rapid change that pushes them to look for management approaches capable of sustaining high performance. Ethical leadership has drawn attention in this context as a style that joins a leader's personal integrity with the ability to encourage ethical conduct in others through communication, reinforcement, and decision-making [1]. Its measurement has since expanded to several dimensions, including people orientation, power sharing, concern for sustainability, ethical guidance, role clarification, and integrity [2].

Organizational excellence has been a strategic aim since Peters and Waterman [3] described the traits of excellent firms. It covers an organization's ability to deliver distinguished services, build a favorable reputation, innovate, and develop its people. Research has begun to link ethical leadership to employee outcomes in universities [4] and to examine the determinants of excellence in university institutions [5], yet the relationship between the two variables has had little field testing in Iraqi universities.

The variables, however, are observed at different levels. Ethical leadership is rated for the immediate supervisor, whereas organizational excellence and ethical climate describe the college as a whole, so the relationships among them involve a cross-level link between the conduct of a nearby leader and attributes of the larger institution [6]. Whether the ethical conduct of the immediate supervisor carries over to institution-wide perceptions remains an open question.

The study therefore diagnoses the perceived levels of ethical leadership, ethical climate, and organizational excellence at the College of Administration and Economics, University of Kufa, and tests the direct and indirect structural relationships among them from a human resource management perspective.

Theoretical Framework

Ethical Leadership

Concept

From the 1980s onward, ethical leadership emerged as a unique theory of leadership. It refers to actions that are based on moral principles and that the leader uses to guide his/her own actions and decisions, and that the leader is a moral role model that supports ethical decisions and prosocial behavior in followers [7].

Typically, two components are separated [8]. The leader as a moral person displays integrity, trustworthiness, and honesty. The leader as a moral manager actively communicates, rewards, and holds people accountable for ethical behavior. It is based on the principles of normative ethics (consequentialist, deontological and virtue approaches), but it is unclear which of these approaches' leaders use in decision making [9]. As O'Leary [10, p. 30] pointed out, empirical research was scarce in the early days of the field, but empirical studies have since proliferated, including in the context of higher education [4]. Table 1 summarizes representative definitions.

Table 1. Selected definitions of ethical leadership

Source	Emphasis of the definition
Yukl [11]	Ethical leadership is inferred from observable behaviors that reflect ethical values, such as supportiveness, fairness in distributing rewards, honest communication, sacrifice for others, clear ethical standards, and accountability for ethical and unethical acts.
van Gils [12]	A leadership process through which ethical leader behavior is transmitted to followers' behavior by way of social learning, exchange, and identity.
Walumbwa et al. [13]	A leadership style that creates positive relationships and thereby strengthens followers' trust in the leader.

Source: Prepared by the researchers from the literature cited in the table.

In keeping with the instrument's dimensions, ethical leadership is defined operationally as the set of behaviors shown by the immediate supervisor that are marked by integrity and fairness, concern for employees, power sharing, role clarification, and concern for sustainability, and

through which the supervisor promotes ethical behavior by ethical guidance, communication, and accountability, as perceived by academic and administrative staff. The definition covers the seven dimensions of the instrument, including fairness, measured by three negatively worded items (EL19–EL21).

Metcalfe [14, p. 27] argues that ethical leaders lead with care for others and identifies reciprocity with subordinates, empathy, service and support, and honesty as guiding principles. O'Leary [10, p. 31] adds that such leaders act altruistically, work for the benefit of others, and must maintain a high level of integrity, because followers' perception of their credibility shapes followers' own conduct. Some of these qualities overlap with transformational leadership, such as idealized influence and individualized consideration, but ethical leadership is distinguished by its emphasis on setting and communicating ethical standards and holding employees accountable for them [1].

Ethical leadership overlaps conceptually with other leadership styles that carry a moral dimension, such as transformational, authentic, and spiritual leadership, from which it differs mainly in its emphasis on setting and communicating ethical standards and holding employees accountable [15] [1]. Meta-analytic evidence suggests that the overlap is empirical as well as conceptual. Ethical leadership predicted task performance, citizenship behavior, and counterproductive work behavior beyond transformational leadership and other styles, although weakly in some cases [16], and a later meta-analysis found high correlations of ethical and authentic leadership with transformational leadership and low incremental variance beyond it [17]. Since the present study measures only ethical leadership, its findings cannot be attributed to ethical leadership as distinct from these styles.

Dimensions

Following Kalshoven et al. [2], seven dimensions are distinguished:

1. People orientation: care, respect, and support for followers.
2. Power sharing: involving followers in decisions and listening to their concerns.
3. Concern for sustainability: attention to the environment and to recycling.
4. Ethical guidance: communicating about ethics, explaining ethical rules, and rewarding ethical conduct.
5. Role clarification: clarifying responsibilities, expectations, and performance goals.
6. Integrity: consistency between words and deeds and keeping promises.
7. Fairness: treating employees equitably, not blaming them for matters beyond their control, and not exploiting them for personal gain.

The original Ethical Leadership at Work (ELW) questionnaire consists of 38 items in these dimensions. Three items per dimension (21 items) were used in this study, as fairness is a core conceptual component and the seven-factor structure was confirmed by confirmatory factor analysis in the original study and subsequent validations [2]. The reliability and convergent validity of this abridged form are examined in Results and Discussion, and it needs further verification on other samples. The sustainability dimension also aligns with recent literature in the field of leadership that connects leaders' ethical values with their responsibility for sustainability [18].

Organizational Excellence

Concept and Importance

Organizational excellence entered management research with Peters and Waterman [3]. It refers to an organization's sustained commitment to improving its core processes, working conditions, teamwork, innovation, motivation, and culture, so that quality becomes a core value of management rather than a feature of products alone. Excellence is typically assessed through continuous-improvement programs that show what has been achieved and what remains to be done. At the employee level it involves taking responsibility, learning continuously, and getting work right the first time. Excellent organizations satisfy their stakeholders through what they achieve, how they achieve it, and their capacity to sustain results, and they give financial and non-financial measures equal weight [19, p. 146]. They are better placed to attract and retain customers, employees, investors, and suppliers [20, p. 98], and they create value through a sustainable competitive advantage that meets or exceeds

stakeholders' expectations. Typical characteristics include innovation, continuous learning, inspiring leadership, responsiveness to change, attention to stakeholders, and employee involvement [21, p. 76]. Its pillars include a clear vision and mission, effective top-management leadership, placing the right people in the right positions, efficient processes, and responsiveness to change [22, p. 10]. Correia et al. [23, p. 2] describe it as an integrated set of best practices tied to the organization's values and culture.

The importance of excellence lies in what it does for people and for performance. It improves human resources and the work environment, strengthens reputation and employee satisfaction and loyalty, supports a culture of continuous improvement and learning, aligns strategy with resources, and helps the organization accept and manage change [24]. In universities, Shaban [5] found that strategic agility contributes positively to excellence in Jordanian universities, which suggests that excellence there depends on leadership and strategic capabilities, in line with this study's focus on leadership as a determinant.

Objectives and Attributes

Organizations pursue financial returns in business settings, survival, and competitiveness, and sustainability has become a driver of excellence in both commercial and non-commercial organizations [25]. Zehir et al. [26, p. 809] list its aims as high employee performance, the realization of individuals' potential, a work environment that supports that potential, and the shaping or reinforcement of organizational culture. Kazemian et al. [25, p. 353] add the optimal use of resources, real value for stakeholders, and the integration of financial and non-financial performance, while Al-Amarat [22, p. 9] stresses linking strategies across management levels, managing change, disseminating best practices, strengthening responsibility, and effective communication.

Excellent organizations are characterized by a clear identity grounded in vision, mission, and values; a view of stakeholder value as their reason for existing; responsiveness to all stakeholders, not only external customers; advanced and continuously developing management systems; a strong organizational culture; systematic organizational learning oriented toward innovation and individual creativity; and continuous improvement of vital processes with awareness of their role in sustainable development [27, p. 54]. Correia et al. [23, p. 3] add that these organizations enjoy profitability, reputation, good management, employee satisfaction, and customer satisfaction.

Dimensions

Organizational performance is multidimensional [28, p. 131]. The study adopts the dimensions of Al-Eisawi [29], whose model was developed to measure service excellence from the customers' perspective in British banks; applying them to a university is therefore an adaptation by the researchers, not direct use of the original scale.

1. Superior service: Customers turning to competitors signals a fault in service delivery, which should trigger a plan to correct it and an organized route toward continuous improvement. In business, superior service gives a competitive advantage that is hard to copy; in public universities it appears as students' and beneficiaries' confidence in, and preference for, the institution. Universities that keep pace with change and adopt continuous improvement as a strategy have achieved qualitative advances [30]. Service excellence is the organization's ability to deliver consistently outstanding customer experiences [31, p. 5].
2. Reputation: Interest in reputation grew from the branding literature of the 1990s and work on organizational identity, and the concept was developed chiefly by Fombrun [32] as a perceptual evaluation of the organization, or the personality traits people attribute to it [33, p. 54]. It can be seen from the organization's side, as an intangible asset that helps manage stakeholders' expectations and differentiate the organization from rivals, and from the stakeholders' side, as their intellectual, emotional, and behavioral response to whether the organization's communications and actions meet their needs. Reputation is tied to comparison with competitors and to organizational identity, representing the organization's standing among employees and external stakeholders [34, p. 220].

3. Innovation: Innovation is a dynamic part of organizational strategy. In fast-changing environments organizations must keep seeking new opportunities in order to improve the returns of their current operations, or the quality of their outputs in non-profit institutions. Anticipating demand and launching new products or services decisively often yields strong performance, and faster innovation turns time into advantage by meeting needs, setting standards, and strengthening competitiveness and brand recognition.
4. Employee excellence: In services, the literature stresses the human element and the dual role of service employees in operations and marketing. Customers' perception of exceptional service is often tied to personal interaction with employees, producing an emotional bond that sometimes exceeds loyalty to the organization itself; many services are designed around such personal relationships [29, p. 110].

Ethical Climate

Concept and Importance

Organizational climate refers to employees' shared perceptions of the policies, practices, procedures, and behaviors that the organization rewards, supports, and expects [35, p. 362]; ethical climate is the domain-specific form focused on ethics. Victor and Cullen [36, p. 101] defined it as the prevailing perceptions of typical organizational practices and procedures that carry ethical content, that is, what employees perceive as ethically correct behavior and how ethical issues are handled. It differs from ethical culture, which refers to formal and informal systems of behavioral control such as written rules, rewards, and role models [37]. Arnaud [38] extended the concept to collective ethical decision-making, from moral sensitivity to judgment, motivation, and behavior. For the mediation model, the study defines ethical climate as academic and administrative staff's shared perceptions of what counts as ethically acceptable behavior in the college and of the standards to which they turn when facing ethical issues.

Climate matters because it guides behavior where formal rules are silent. Martin and Cullen's [39] meta-analysis linked climate types to job satisfaction, commitment, and ethical and unethical behavior: caring, rules, and law-and-code climates relate positively to desirable outcomes, whereas an instrumental climate relates negatively to them and positively to dysfunctional behavior [40]. Climate is shaped by leadership and organizational structure [41]. Universities are a clear case, because much academic work rests on professional judgments with ethical content, such as fair assessment of students, academic integrity, equal opportunity, and transparent service, which formal rules cannot fully regulate.

Types

Victor and Cullen [36] classified climates along two dimensions: the criterion of ethical judgment (egoism, benevolence, principle) and the locus of judgment (individual, local, cosmopolitan). Applied research using the Ethical Climate Questionnaire yielded five main types [42] [39, p. 178]: instrumental (decisions serve self-interest), caring (concern for the well-being of employees and others), independence (action by personal moral conviction), rules (internal rules and procedures as the guide), and law and code (external laws and professional codes as the guide).

Ethical Leadership, Ethical Climate, and Organizational Excellence

Leaders shape ethical climate by determining what is rewarded and punished and by modeling behavior from which employees infer prevailing standards. Evidence includes links between leaders' moral development and unit climate [43]; ethical leadership related to lower employee misconduct through climate [44, p. 8]; top-management ethical leadership related to organization-level climate and collective citizenship behavior [45]; links among ethical leadership, ethical climate, and employees' ethical behavior [46] [47]; and climate mediating the relationship between ethical leadership and both affective commitment and turnover intention [48]. Social learning theory explains the mechanism: employees observe their leader, infer acceptable standards, and through repetition turn them into shared perceptions [1]. Because climate is a property of a unit or an organization whereas leadership is observed at the level of the individual leader, the leadership–climate link is a cross-level one [6], and one

would expect it to be stronger when climate is assessed for the unit that the leader heads than for the institution as a whole. Conceptually, ethical guidance and role clarification would be expected to strengthen rules and law-and-code climates, people orientation to strengthen a caring climate, and fairness and integrity to limit an instrumental climate; these links are proposed from theory and were not tested here.

Climate-related outcomes also feed the dimensions of excellence: satisfaction, commitment, and lower turnover intention relate to employee excellence [48]; collective citizenship relates to cooperation [45]; and fewer dysfunctional behaviors relate to service quality and reputation [47]. A positive climate should therefore support organizational excellence and an instrumental climate should hinder it. Within the limits of the available review, no study was found that tests ethical climate against the four excellence dimensions in Iraqi higher education, which is the gap the study seeks to address by testing the mediation model.

The Mediation Model Adopted in the Study

On this basis, the study tests a mediation model in which ethical climate mediates the relationship between ethical leadership and organizational excellence, through three hypotheses: (H4) ethical leadership positively affects ethical climate in the college; (H5) ethical climate positively affects organizational excellence, controlling for ethical leadership; and (H6) ethical climate mediates the relationship between ethical leadership and organizational excellence. These are added to the first three hypotheses, which address level, correlation, and the direct path. Ethical climate was measured with the EHEC scale (26 items), an adaptation to the university setting of the Victor and Cullen [36] questionnaire, validated on 200 faculty and administrative staff in three Emirati universities, where it showed a unidimensional structure (Cronbach's alpha = 0.93, composite reliability = 0.95, average variance extracted = 0.48) [49, pp. 7, 10–11]. This does not replace validation in the Iraqi context, because the scale was developed in a different institutional and cultural setting, its average variance extracted was below 0.50, and all its items are positively worded; verification of the validity and reliability of its Arabic version is therefore presented in Results and Discussion. The indirect effect was tested by bootstrapping within structural equation modeling [50]. Because all variables were measured at one time and from one source, a causal mediation cannot be inferred, so the mediation tested here is statistical mediation.

Ethical Leadership and Organizational Excellence from a Human Resources Perspective

Three HR approaches locate this relationship. The line-manager approach holds that immediate managers are where HR policies are actually implemented, so the gap between intended and enacted practice depends on the manager's behavior and style [51]; an ethical leader's role clarification, power sharing, and people orientation are therefore the everyday face of HRM for employees. The ability–motivation–opportunity framework explains performance as the product of employees' abilities, motivation, and opportunities to participate [52]: ethical guidance builds the ability to act properly, people orientation supports motivation, and power sharing provides opportunity. The ethical HRM approach holds that treating employees as ends rather than means is a condition for sustained performance [53]. In this light employee excellence is the direct HR output in the model, and the other excellence dimensions are outcomes realized through human resources.

These approaches are consistent with the ethical-climate argument above: the leadership–excellence relationship may be transmitted through what leaders do to employees' shared ethical perceptions, which the applied part tests statistically through the mediation model (H4–H6).

Methods

The Study Problem

Ethical leadership has become a prominent topic in management thought, driven by awareness of the harm caused when managers disregard their organization's responsibilities toward the parties it deals with, which weakens the organization's reputation and its work environment. Whether ethical leadership shapes employee behavior is largely settled conceptually, but field

evidence from the institutions concerned here is still lacking. Recent higher-education studies have concentrated on individual behavioral outcomes such as organizational citizenship behavior [4]. Within the limits of the review available to them, the researchers found no published Iraqi study testing the link between ethical leadership and organizational excellence in public higher education. Iraqi studies have instead related ethical leadership to individual or group outcomes in non-university organizations, such as leadership effectiveness and team performance in private companies in the Kurdistan Region [54] and job embeddedness and involvement in charitable organizations in Erbil [55], without treating organizational excellence at the institutional level. This is the gap the study addresses through five questions:

1. What are the conceptual orientations of ethical leadership, organizational excellence, and ethical climate?
2. To what extent are the dimensions of ethical leadership and of organizational excellence, and ethical climate, present at the College of Administration and Economics, University of Kufa, from the standpoint of its academic and administrative staff?
3. Is there a statistically significant correlation between the dimensions of ethical leadership and those of organizational excellence?
4. Is there a positive and statistically significant structural path from ethical leadership to organizational excellence, and which dimensions contribute most to it?
5. Does ethical climate mediate the relationship between ethical leadership and organizational excellence in the college under study?

Significance of the Study

1. It adds to the Arab literature on ethical leadership and opens the way to examining the concept from different angles.
2. It raises awareness of the need for Iraqi organizations to adopt ethical leadership behaviors toward the parties they deal with.
3. It gives the college's management indicators of the level of ethical leadership practices and their relationship to the dimensions of organizational excellence, helping to identify priority areas for improvement.

Objectives of the Study

1. To build a theoretical framework for ethical leadership and organizational excellence, and for ethical climate as a mediating variable.
2. To diagnose the level at which the dimensions of the study variables (ethical leadership, organizational excellence, and ethical climate) are present in the college, as perceived by its staff.
3. To determine the nature and strength of the correlation between the dimensions of the two variables.
4. To estimate the statistical relationship between perceived ethical leadership and perceived organizational excellence using structural equation modeling, and to explore the dimensions that contribute most to it.
5. To test the mediating role of ethical climate in the relationship between ethical leadership and organizational excellence.

The Hypothetical Model of the Study

The study model is shown in Figure 1. Ethical climate appears in the model as a mediating variable between ethical leadership and organizational excellence, with the direct path between them retained.

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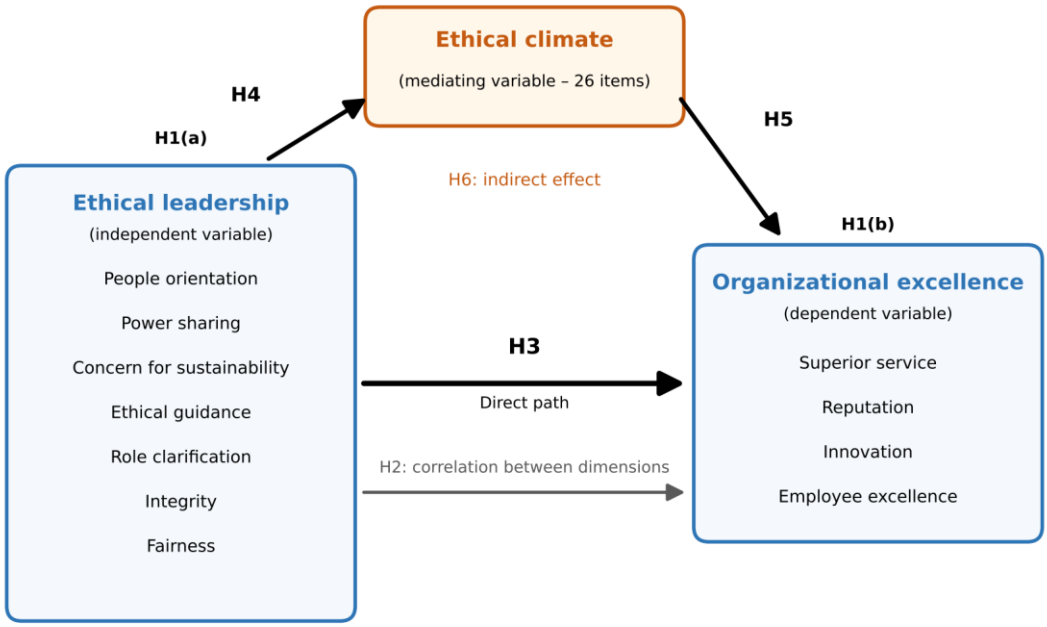


Figure 1. The hypothetical model of the study
Source: Prepared by the researchers.

Hypotheses of the Study

1. H1(a): The mean of employees' perception of ethical leadership behaviors on the part of their immediate supervisors significantly exceeds the lower bound of the high level (3.40). H1(b): The mean of employees' perception of the college's organizational excellence significantly exceeds the lower bound of the high level (3.40).
2. H2: There is a statistically significant correlation between the dimensions of ethical leadership and the dimensions of organizational excellence.
3. H3: There is a positive and statistically significant structural path from perceived ethical leadership to perceived organizational excellence.
4. H4: There is a positive and statistically significant effect of ethical leadership on ethical climate in the college.
5. H5: There is a positive and statistically significant effect of ethical climate on organizational excellence, controlling for the effect of ethical leadership.
6. H6: Ethical climate mediates the relationship between ethical leadership and organizational excellence; that is, the indirect effect of ethical leadership on organizational excellence through ethical climate is positive and statistically significant.

Study Method, Population, and Instrument

Population and sample: The population consisted of 248 academic staff (130) and administrative staff (118) in the College of Administration and Economics, University of Kufa, based on the records of the college for the academic year 2025-2026. The data was gathered at the end of the academic year in seven days, both electronically (Google Forms) and on paper. Data screening resulted in the exclusion of 14 questionnaires with uniform or non-differentiated response patterns (straight-lining), leaving 99 valid questionnaires (44 academic and 55 administrative/technical staff; effective response rate = 39.9%). The results of both modes of administration were combined into one anonymous data set for analysis. This proportion does not necessarily indicate representativeness as participation was voluntary, and results are generalized with caution. A sensitivity power analysis ($\alpha = 0.05$, power = 0.80) revealed that $n = 99$ can detect a correlation of at least 0.28, an effect of $f^2 \geq 0.09$ for a single coefficient in a seven-predictor regression, and $f^2 \geq 0.16$ for the model as a whole. These

thresholds are lower than the estimated main effect ($r = 0.581$, $f^2 = 0.54$), but small unique effects of individual dimensions may not be detected.

Level of analysis: The unit of analysis is the individual respondent who rates his/her immediate supervisor and the college as perceived. The study thus examines the correlation between two perceptions of the same individual, rather than the actual excellence of institutions. Common-source bias is not the same as respondents reporting to the same supervisor giving correlated answers, which violates the independence assumption. The questionnaire did not specify department or unit, and therefore clustering could not be statistically analysed; there are five academic departments, twelve administrative units and nine immediate-supervisor posts in the college.

Instrument: The questionnaire has 59 items. Twenty-one items measure ethical leadership, adapted from Kalshoven et al. [2], whose original scale has seven dimensions and 38 items; three items were taken for each dimension, including fairness, whose items are negatively worded and reverse-scored, which also helps limit acquiescence bias. Because this is an abridged form, its structure and reliability were examined through the measurement model in Results and Discussion. Twelve items measure organizational excellence, adapted from Al-Eisawi [29], a model of service excellence in British banking. Al-Eisawi presented elements such as reputation and innovation as antecedents of service excellence from the customer's viewpoint, not as dimensions for measuring it [56]; using them as dimensions of university excellence is therefore a conceptual adaptation by the researchers. The twelve items were written by the researchers, three per dimension, for the university context (referring, for instance, to students, service users, graduates, and peer colleges), so the instrument is newly developed rather than a previously validated scale. It measures employees' perceptions, not objective institutional performance, and it covers the educational and administrative service side of excellence rather than research and community service; the operational definition (Table 3) is confined accordingly. The leadership items were worded in Arabic for the university workplace, where "the manager" means the respondent's immediate administrative supervisor. Responses use a five-point Likert scale. As no prior evidence supports this abridged form, the reliability and validity results in Results and Discussion are the evidence offered in this study, and use of the full scale is recommended in later work. Ethical climate was measured using 26 items adapted from the Ethical Climate of Higher Education Institutions (EHEC) scale [49], which contextualizes Victor and Cullen's [36] framework to the university environment. To ensure linguistic and conceptual equivalence in the Iraqi academic setting, the items were translated into Arabic and reviewed by a panel of bilingual specialists in organizational behavior and human resource management, followed by iterative wording refinements prior to administration. Consistent with the original validation study, ethical climate was specified as a unidimensional reflective construct. Because psychometric evidence for the Arabic adaptation in Iraqi public universities was not previously established, its internal consistency, convergent validity, and discriminant validity were empirically evaluated prior to structural hypothesis testing (Results and Discussion).

Results and Discussion

Variables and Dataset

Study Variables

In light of the foregoing theoretical framework, the study model consists of three variables: an independent variable, a mediating variable, and a dependent variable:

1. The independent variable is represented by the dimensions of ethical leadership, which comprise people orientation, power sharing, concern for sustainability, ethical guidance, role clarification, integrity, and fairness.
2. The mediating variable is ethical climate, measured by a unidimensional scale of 26 items adapted from Alowais and Suliman [49].
3. The dependent variable is represented by the dimensions of organizational excellence, which comprise superior service, reputation, innovation, and employee excellence, as specified by Kalshoven et al. [2] and Al-Eisawi [29] respectively. See the following table.

Table 2. Scales adopted for measuring the study variables

Variable	Dimension	Number of items	Scale
Ethical leadership	People orientation	3	Kalshoven et al. [2]
	Power sharing	3	
	Concern for sustainability	3	
	Ethical guidance	3	
	Role clarification	3	
	Integrity	3	
	Fairness	3	
Organizational excellence	Superior service	3	Al-Eisawi [29]
	Reputation	3	
	Innovation	3	
	Employee excellence	3	
Ethical climate (mediating variable)	Unidimensional	26	Alowais & Suliman [49]

Source: Prepared by the researchers. Ethical climate (26 items) is treated as a unidimensional variable, consistent with the EHEC scale [49]. Appendix (1) matches each Arabic item with the original item by content.

The table shows that three items were adopted for each dimension, i.e. 21 items for ethical leadership, 12 for organizational excellence, and 26 for ethical climate, whereas the original scale of Kalshoven et al. [2] consists of 38 items, and the model of Al-Eisawi [29] is a model of service excellence from the customers' perspective. The instrument used is therefore an abridged form adapted by the researchers.

Operational Definitions of the Variables

The following table sets out the operational definitions of the study variables:

Table 3. Operational definitions of the research

Category	Variable	Definition
Independent variable	Ethical leadership	Behaviors displayed by the immediate supervisor that are characterized by integrity and fairness, concern for employees, sharing power with them, clarifying their roles, and concern for sustainability, through which the supervisor promotes ethical behavior among employees by means of ethical guidance, communication, and accountability, as perceived by academic and administrative staff.
Its dimensions	1. People orientation	Caring for, respecting, and supporting followers.
	2. Power sharing	Allowing followers to participate in decision-making and listening to their ideas and concerns.
	3. Concern for sustainability	Caring for the environment and encouraging recycling.
	4. Ethical guidance	Communicating about ethics, explaining ethical rules, and promoting and rewarding ethical conduct.
	5. Role clarification	Clarifying responsibilities, expectations, and performance goals.
	6. Integrity	Consistency between words and deeds, and keeping promises.
	7. Fairness	Treating employees equitably, not holding them responsible for matters beyond their control, and not exploiting them to serve personal interests.

Category	Variable	Definition
Mediating variable	Ethical climate	Shared perceptions among academic and administrative staff in the college of what counts as ethically acceptable behavior there, and of the standards to which they turn when facing ethical issues at work, measured by a unidimensional scale of 26 items.
Dependent variable	Organizational excellence	The ability of the college, as perceived by its employees, to deliver distinguished educational and administrative services to beneficiaries and to resolve its problems promptly; to build a positive reputation and the confidence of society and beneficiaries; to adopt new methods, programs, and services in education and administration; and to have its employees achieve their goals and cooperate. This operational definition does not cover the outputs of scientific research and community service, because the instrument's items do not measure them directly.
Its dimensions	1. Superior service	The ability of the college to deliver distinguished educational and administrative services to students and beneficiaries on a continuing basis, and to remedy service-delivery errors promptly through clear procedures.
	2. Reputation	A perceptual representation or evaluation of the organization according to its various elements and social expectations, or personality traits that individuals attribute to organizations.
	3. Innovation	The college's adoption of modern and innovative methods in education and administration, the introduction of new programs or services that meet beneficiaries' needs, and its encouragement of employees to put forward new ideas for developing the work.
	4. Employee excellence	The focus of the college's employees (academic and administrative staff) on goals, their responsiveness to challenges and tasks, and their cooperation with one another, as the decisive element in the quality of education and of the service provided to beneficiaries.

Source: Prepared by the researchers.

Characteristics of the Data

The number of responses included in the analysis was 99 across the questionnaire's 59 items, with no missing values, duplicate cases, or uniform (straight-line) response patterns. Responses collected via the electronic form (Google Forms) and the paper questionnaire were consolidated into a single dataset after excluding 14 non-differentiated cases during data screening. Table 4 presents the distribution of the sample members by demographic characteristics.

Table 4. Distribution of the sample members by demographic characteristics (n = 99)

Variable	Category	Frequency	Percentage (%)
Gender	Male	66	66.7
	Female	33	33.3
Age	Under 30 years	14	14.1
	30 to under 40 years	40	40.4
	40 to under 50 years	28	28.3
	50 to under 60 years	14	14.1

Variable	Category	Frequency	Percentage (%)
	60 years and over	3	3.0
Job category	Academic staff	44	44.4
	Administrative or technical staff	55	55.6
Length of service at the college	Under 5 years	19	19.2
	5 to under 10 years	30	30.3
	10 years or more	50	50.5
Total		**99**	**100.0**

Source: Prepared by the researchers on the basis of the statistical analysis output.

Table 4 shows that males make up 66.7% of respondents and females 33.3%; the 30-to-under-40 group is the largest age group (40.4%), followed by 40-to-under-50 (28.3%); 44 respondents (44.4%) are academic staff and 55 (55.6%) administrative or technical staff; and half (50.5%) have served ten years or more. Educational attainment was excluded from demographic reporting and statistical modeling due to a form-routing error in the electronic survey that misclassified the degree level of several academic respondents; because job category (academic vs. administrative) was recorded accurately and aligns with statutory appointment qualifications, omitting this variable did not affect the substantive analyses. No missing values, out-of-range values, or uniform response patterns appeared in the items of the scales.

Model Assessment and Hypothesis Testing

Assessment of the Measurement Model

PLS-SEM was adopted because it suits predictive models and medium-sized samples [50]. Since both variables are multidimensional, each was modeled as a second-order construct with the embedded two-stage approach: the first stage estimates a repeated-indicators model in which the eleven dimensions are measured by their items and each higher-order construct by the items of all its dimensions; the second stage uses the resulting dimension scores as indicators of the two principal constructs [57].

Both second-order constructs were specified as reflective–reflective, a decision taken from their definitions before any empirical check. Ethical leadership is defined here as an employee's general perception of the supervisor as simultaneously a "moral person" and a "moral manager" [8] [1]; this general perception is assumed to give rise to the sub-behaviors the employee reports, so that evaluations of them move together, rather than the seven dimensions composing the construct with independent weights. Likewise, organizational excellence is the employee's overall evaluation of the college, with service, reputation, innovation, and employee excellence as manifestations of it, not independent objective indicators. This is consistent with the high correlations among dimensions within each variable. Because the Kalshoven et al. [2] dimensions are conceptually distinct behaviors that might be argued to form the construct, a reflective–formative model of ethical leadership was also estimated as a sensitivity analysis [57]; its results appear with the structural model.

A first-order model linking all 33 items directly to the two constructs was estimated for comparison only; its average variance extracted (AVE) was 0.476 for ethical leadership and 0.492 for organizational excellence, below the 0.50 guideline, although this alone does not justify the higher-order choice. Assessment criteria were indicator loadings ≥ 0.70, Cronbach's alpha and composite reliability ≥ 0.70, AVE ≥ 0.50, the Fornell and Larcker [58] criterion, and HTMT < 0.85 with bootstrap confidence intervals, an upper bound that includes 1 indicating that discriminant validity is not established [59].

Estimation and reproducibility: The model was estimated with custom Python code (version 3.11.17; NumPy 2.2.6, pandas 2.3.1, SciPy 1.16.1). The code, anonymized coded data (without demographic variables or timestamps), and output are held in a supplementary-materials file

submitted with the manuscript and available to reviewers on request. Both stages used Mode A and the path-weighting scheme (Mode B for ethical leadership in the sensitivity analysis). Estimation was treated as converged when the largest change in outer weights between iterations fell below 10^{-7} (maximum 300 iterations); it converged in 7 iterations for the first stage and 6 for the second, and the first stage converged in every bootstrap subsample. Bootstrapping used 5,000 subsamples and 95% percentile intervals, re-estimating both stages each time (seed 20261113). HTMT intervals and the additional analyses (Holm correction, power analysis, residual diagnostics, influential cases, comparisons among coefficients, cross-loadings) used the same code with seed 2026 and 5,000 subsamples. Descriptive statistics (Table 7), correlations (Table 9), and regression (Table 11) are based on unweighted means of each dimension's items, and the regression reports standardized β coefficients and standard errors. The mediation model (H4–H6) was estimated in SmartPLS (version 4.1.2.1) using the PLS algorithm and the path-weighting scheme, with bootstrapping of 5,000 subsamples, two-tailed testing, and 95% percentile intervals; it holds the first-stage scores fixed and does not re-estimate them in each subsample, so its results were compared with the Python estimation described above, which re-estimates both stages, and the two were close.

1. First stage: the sub-dimensions

Table 5. Reliability and convergent validity indicators of the sub-dimensions (first stage)

Variable	Dimension	Items	Range of loadings	Cronbach's alpha	Composite reliability ρ_c	AVE
Ethical leadership	People orientation	EL1–EL3	0.806 – 0.857	0.769	0.866	0.684
	Power sharing	EL4–EL6	0.838 – 0.849	0.796	0.881	0.712
	Concern for sustainability	EL7–EL9	0.758 – 0.851	0.754	0.859	0.670
	Ethical guidance	EL10–EL12	0.693 – 0.849	0.713	0.840	0.638
	Role clarification	EL13–EL15	0.819 – 0.902	0.836	0.902	0.754
	Integrity	EL16–EL18	0.741 – 0.832	0.695	0.831	0.621
	Fairness	EL19–EL21	0.780 – 0.810	0.706	0.836	0.630
Organizational excellence	Superior service	OE1–OE3	0.812 – 0.845	0.767	0.868	0.687
	Reputation	OE4–OE6	0.807 – 0.824	0.743	0.854	0.661
	Innovation	OE7–OE9	0.810 – 0.857	0.785	0.875	0.700
	Employee excellence	OE10–OE12	0.770 – 0.825	0.719	0.843	0.641
Ethical climate	Unidimensional	EC1–EC26	0.506 – 0.719	0.940	0.944	0.394

Source: Prepared by the researchers on the basis of the statistical analysis output (n = 99).

Table 5 shows that composite reliability exceeded 0.70 for all eleven dimensions (0.831–0.902) and AVE exceeded 0.50 (0.621–0.754), supporting convergent validity. All loadings exceeded 0.70 except EL11 (0.693), retained because its dimension's composite reliability and AVE are satisfactory [50]. Cronbach's alpha exceeded 0.70 in ten dimensions and was 0.695 for integrity, at the edge of the acceptable range. Discriminant validity among dimensions within each variable, however, was not met for many pairs. Table 5-a gives HTMT for the twenty-

seven within-variable pairs: 16 exceeded 0.85, 9 exceeded 0.90, and the confidence interval's upper bound reached 1 in 11, most notably integrity–people orientation (1.007) and employee excellence–reputation (0.964). By contrast, HTMT between any ethical-leadership dimension and any excellence dimension did not exceed 0.729, with no upper bound reaching 1. Table 5-b also shows that every item loads more strongly on its own dimension (0.693–0.902) than on any other dimension of the same variable (maximum 0.665), by at least 0.14. Because the cross-loading criterion may not reliably detect weak discrimination [59], HTMT is the primary basis for judgment, and the second-order model does not remove the problem: sharing a higher-order construct may explain the dimensions' correlation but does not show that they are empirically distinct. Overall-level relationships are therefore interpreted with caution, the hierarchical structure needs further verification, and dimension-level results (Tables 7, 9, and 11) are exploratory. Plausible explanations are the abridgment to three items per dimension, similar wording in some items (for example, integrity and people-orientation items that describe the manager's treatment of employees), and respondents' tendency to rate their manager globally. No item was deleted to improve indicators, as there is no conceptual justification for doing so.

Table 5-a. HTMT ratio among the dimensions within each variable and its confidence intervals (bootstrap, 5,000 subsamples)

Variable	Pair	HTMT	95% confidence interval	Discrimination
Ethical leadership	Power sharing – People orientation	0.943	0.846 – 1.041	Not established
	Concern for sustainability – People orientation	0.909	0.773 – 1.023	Not established
	Concern for sustainability – Power sharing	0.862	0.716 – 0.978	Weak
	Ethical guidance – People orientation	0.915	0.773 – 1.040	Not established
	Ethical guidance – Power sharing	0.838	0.688 – 0.975	Established
	Ethical guidance – Concern for sustainability	0.862	0.711 – 0.997	Weak
	Role clarification – People orientation	0.851	0.732 – 0.950	Weak
	Role clarification – Power sharing	0.835	0.698 – 0.943	Established
	Role clarification – Concern for sustainability	0.849	0.732 – 0.956	Established
	Role clarification – Ethical guidance	0.870	0.718 – 0.997	Weak
	Integrity – People orientation	1.007	0.884 – 1.147	Not established
	Integrity – Power sharing	0.922	0.815 – 1.034	Not established
	Integrity – Concern for sustainability	0.828	0.680 – 0.981	Established

Variable	Pair	HTMT	95% confidence interval	Discrimination
	Integrity – Ethical guidance	0.879	0.706 – 1.059	Not established
	Integrity – Role clarification	0.914	0.786 – 1.037	Not established
	Fairness – People orientation	0.808	0.651 – 0.961	Established
	Fairness – Power sharing	0.829	0.665 – 0.987	Established
	Fairness – Concern for sustainability	0.798	0.655 – 0.941	Established
	Fairness – Ethical guidance	0.860	0.690 – 1.038	Not established
	Fairness – Role clarification	0.818	0.659 – 0.958	Established
	Fairness – Integrity	0.944	0.792 – 1.107	Not established
Organizational excellence	Reputation – Superior service	0.918	0.796 – 1.037	Not established
	Innovation – Superior service	0.852	0.711 – 0.982	Weak
	Innovation – Reputation	0.782	0.607 – 0.934	Established
	Employee excellence – Superior service	0.809	0.644 – 0.950	Established
	Employee excellence – Reputation	0.964	0.840 – 1.101	Not established
	Employee excellence – Innovation	0.775	0.580 – 0.935	Established

Source: Prepared by the researchers on the basis of the statistical analysis output (n = 99). "Not established": upper bound of the confidence interval ≥ 1; "Weak": HTMT > 0.85 with an upper bound below 1.

Table 5-b. Summary of loadings and highest cross-loadings of the items on the dimension scores of the same variable (first stage)

Item	Dimension	Loading on own dimension	Highest cross-loading	Dimension with the cross-loading	Difference
EL1	People orientation	0.857	0.626	Concern for sustainability	0.231
EL2	People orientation	0.806	0.624	Integrity	0.182
EL3	People orientation	0.817	0.647	Power sharing	0.170
EL4	Power sharing	0.843	0.665	People orientation	0.178
EL5	Power sharing	0.838	0.652	People orientation	0.186
EL6	Power sharing	0.849	0.570	Role clarification	0.279

Item	Dimension	Loading on own dimension	Highest cross-loading	Dimension with the cross-loading	Difference
EL7	Concern for sustainability	0.843	0.574	Role clarification	0.269
EL8	Concern for sustainability	0.758	0.560	People orientation	0.198
EL9	Concern for sustainability	0.851	0.595	Fairness	0.256
EL10	Ethical guidance	0.849	0.598	Role clarification	0.251
EL11	Ethical guidance	0.693	0.536	People orientation	0.157
EL12	Ethical guidance	0.845	0.602	Role clarification	0.243
EL13	Role clarification	0.882	0.635	Power sharing	0.247
EL14	Role clarification	0.902	0.630	Concern for sustainability	0.272
EL15	Role clarification	0.819	0.581	Integrity	0.238
EL16	Integrity	0.741	0.551	Concern for sustainability	0.190
EL17	Integrity	0.788	0.648	People orientation	0.140
EL18	Integrity	0.832	0.585	People orientation	0.247
EL19	Fairness	0.791	0.518	Integrity	0.273
EL20	Fairness	0.810	0.574	Integrity	0.236
EL21	Fairness	0.780	0.519	Role clarification	0.261
OE1	Superior service	0.812	0.576	Reputation	0.236
OE2	Superior service	0.845	0.607	Reputation	0.238
OE3	Superior service	0.829	0.564	Innovation	0.265
OE4	Reputation	0.808	0.571	Superior service	0.237
OE5	Reputation	0.824	0.615	Employee excellence	0.209
OE6	Reputation	0.807	0.556	Superior service	0.251
OE7	Innovation	0.841	0.591	Superior service	0.250
OE8	Innovation	0.810	0.516	Superior service	0.294
OE9	Innovation	0.857	0.621	Employee excellence	0.236
OE10	Employee excellence	0.806	0.617	Reputation	0.189
OE11	Employee excellence	0.770	0.566	Reputation	0.204
OE12	Employee excellence	0.825	0.514	Reputation	0.311

Source: Prepared by the researchers on the basis of the statistical analysis output (n = 99). Cross-loading: the correlation of an item with the score of another dimension of the same variable, estimated in the first stage. The full matrix (33 items × 11 dimensions) is presented in the supplementary materials.

2. Second stage: the principal constructs

Table 6. Reliability, convergent validity, and discriminant validity of the principal constructs (second stage)

Variable	Range of dimension loadings	Cronbach's alpha	Composite reliability ρ_c	AVE	√AVE	Correlation with the other construct	HTMT
Ethical leadership	0.787 – 0.881	0.931	0.944	0.706	0.840	0.592	0.642
Organizational excellence	0.839 – 0.881	0.879	0.917	0.733	0.856	0.592	0.642
Ethical climate	0.506 – 0.719 (items)	0.940	0.944	0.394	0.628	Ethical leadership: 0.142; Organizational excellence: 0.311	Ethical leadership: 0.15; Organizational excellence: 0.27

Source: Prepared by the researchers on the basis of the statistical analysis output (n = 99).

Table 6 shows that both constructs met reliability criteria (Cronbach's alpha 0.931 and 0.879; composite reliability 0.944 and 0.917; AVE 0.706 and 0.733). Discriminant validity between them was established: the square roots of AVE (0.840 and 0.856) exceed their correlation (0.592), and HTMT (0.642) is below 0.85. To mitigate common-method bias procedurally, respondent anonymity was guaranteed, questionnaire sections were psychologically separated with distinct instructions, and reverse-coded items were incorporated into the fairness subscale [60]. Statistically, Harman's single-factor test indicated that the first unrotated factor accounted for 39.1% of the variance among the ethical leadership and organizational excellence items and 23.8% across all 59 items, well below the 50% threshold. Because single-factor diagnostics cannot conclusively rule out method variance [61], full collinearity variance inflation factors (VIFs) were also inspected [62]. All inner-model VIFs remained below the conservative 3.30 threshold (ranging from 1.02 in the mediation model to 3.29 among the leadership sub-dimensions), suggesting that pathological common-method bias is unlikely to account for the observed structural relationships.

Regarding ethical climate, Table 5 shows that the reliability of its twenty-six items is high (Cronbach's alpha = 0.940, composite reliability = 0.944), but its loadings ranged from 0.506 to 0.719 and only one item (EC21) reached 0.70, and its average variance extracted (0.394) is below the 0.50 threshold, so convergent validity was not achieved by the usual criterion. This is close to the value of 0.48 recorded by the original scale [49, p. 11]. High alpha and composite reliability alongside low average variance extracted indicate that the items measure a consistent general perception but do not share enough variance with their latent construct, so the paths of ethical climate are interpreted with caution. Discriminant validity between ethical climate and the other two constructs was established: HTMT between it and ethical leadership was 0.15 and between it and organizational excellence 0.27, and the square root of its average variance extracted (0.628) exceeds its correlations with them (0.142 and 0.311) (Table 6).

Item loadings and scale refinement. Recomputing the indices from the item loadings in Table 8 reproduces the reported average variance extracted (0.394) and composite reliability (0.944). Ten items have loadings below 0.60 (EC1, EC2, EC4, EC9, EC11, EC14, EC15, EC22, EC23, and EC24). If these items were removed while the loadings of the remaining sixteen were held constant, the average variance extracted would be about 0.44 and the composite reliability about 0.93; retaining only the eleven items with loadings of 0.65 or higher would give about 0.46 and 0.90. Under this assumption no subset of items other than a single item

reaches 0.50, so deleting weak items alone would not secure convergent validity, although re-estimation after deletion would change the loadings somewhat, and these figures are indicative rather than a substitute for it. Moreover, the items concerned include content that is central to the construct: the integrity and ethical-consideration items (EC1, EC4), the caring items (EC9, EC11, EC14), and the independence item (EC15). Removing them on statistical grounds alone would narrow content validity, so no item was removed and the full 26-item scale was retained for H4–H6. Under a one-factor model with standardized loadings, McDonald's omega total equals the composite reliability reported above (0.944); omega total and hierarchical omega from a fitted factor model, a test of the unidimensional against the five-type structure, and a re-estimation of the mediation model on a refined item set require item-level analysis that was not carried out in this study and are recommended for later work.

Descriptive Analysis and Testing of the First Hypothesis

Mean levels were classified with five equal-width classes (0.80): very low (1.00–1.80), low (1.81–2.60), moderate (2.61–3.40), high (3.41–4.20), and very high (4.21–5.00). One-sample t-tests were run in two stages: against the hypothetical mean (3), and, for H1, one-tailed against 3.40, the upper bound of the moderate class (df = 98, α = 0.05), since exceeding 3 alone does not show that the high level was reached.

Table 7. Means, standard deviations, and t-test results against the hypothetical mean (3) for the dimensions of the two study variables (n = 99)

Variable	Dimension	Mean	SD	Relative importance (%)	t-value	p	Level	Rank
Ethical leadership	People orientation	3.65	0.59	73.0	10.96	< 0.001	High	4
	Power sharing	3.65	0.65	72.9	9.88	< 0.001	High	6
	Concern for sustainability	3.68	0.61	73.6	11.13	< 0.001	High	2
	Ethical guidance	3.67	0.58	73.5	11.57	< 0.001	High	3
	Role clarification	3.61	0.67	72.2	9.07	< 0.001	High	7
	Integrity	3.65	0.56	72.9	11.55	< 0.001	High	5
	Fairness	4.42	0.51	88.5	27.89	< 0.001	Very high	1
	Overall index	**3.76**	**0.50**	**75.2**	**15.14**	**< 0.001**	**High**	—
Organizational excellence	Superior service	3.37	0.60	67.5	6.17	< 0.001	Moderate	3
	Reputation	3.31	0.58	66.3	5.38	< 0.001	Moderate	4
	Innovation	3.38	0.59	67.7	6.43	< 0.001	Moderate	2
	Employee excellence	3.45	0.60	69.0	7.42	< 0.001	High	1
	Overall index	**3.38**	**0.51**	**67.6**	**7.44**	**< 0.001**	**Moderate**	—
Ethical climate	Overall index (26 items)	3.30	0.54	66.1	5.56	< 0.001	Moderate	—

Source: Prepared by the researchers on the basis of the statistical analysis output.

H1(a): The overall ethical leadership index was 3.76 (SD = 0.50; 95% CI 3.66–3.86) and significantly exceeded 3.40 (t = 7.19, p < 0.001, one-tailed); H1(a) is accepted. Dimension-

level results are exploratory for the reasons given in the measurement-model assessment: the lower confidence bound of all seven dimensions was above 3.40 (from 3.48 for role clarification to 4.32 for fairness). Fairness ranked first (4.42; 4.32–4.53) by a clear margin, while the other dimensions (3.61–3.68) had overlapping intervals, so their ranking implies no real differences. H1(b): The overall organizational excellence index was 3.38 (SD = 0.51; 95% CI 3.28–3.48) and did not significantly exceed 3.40 ($t = -0.40$, $p = 0.655$, one-tailed); H1(b) is rejected. The same holds for all four dimensions: employee excellence (3.45; 3.33–3.57), innovation (3.38; 3.27–3.50), superior service (3.37; 3.25–3.49), and reputation (3.31; 3.20–3.43). Figure 3 shows these means.

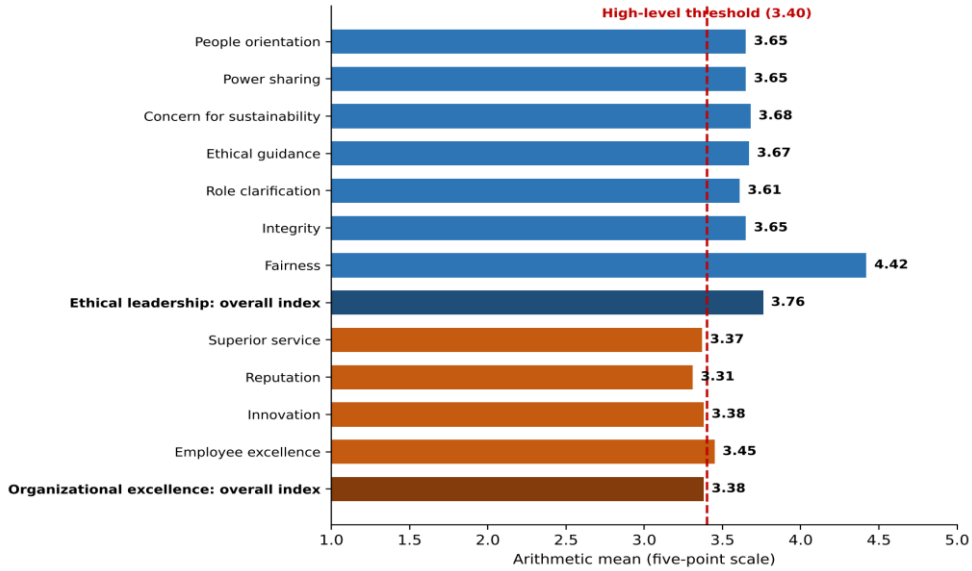


Figure 3. Means of the dimensions of ethical leadership and organizational excellence compared with the high-level threshold (3.40)
Source: Prepared by the researchers on the basis of the statistical analysis output.

Ethical climate: Its mean was 3.30 (SD = 0.54; relative importance 66.1%; 95% CI 3.20–3.41), at the moderate level; it significantly exceeded the hypothetical mean (3) ($t = 5.56$, $p < 0.001$), and there was insufficient evidence that it exceeded the high-level threshold (3.40) ($t = -1.77$, $p = 0.960$, one-tailed), as its confidence interval includes 3.40. Item means ranged from 3.07 (EC23) to 3.51 (EC9) (Table 8).
Table 8 presents the means and standard deviations of the questionnaire items and the loading of each item on its dimension. The means of the ethical leadership items ranged from 3.57 for item EL16 to 4.43 for items EL20 and EL21 after their reverse-coding, and the means of the organizational excellence items ranged from 3.24 for item OE6 to 3.51 for item OE10.

Table 8. Descriptive statistics and loadings of the questionnaire items (n = 99)

Code	Item	Mean	SD	Loading
Dimension: People orientation				
EL1	The manager cares about employees' feelings and their circumstances at work.	3.64	0.73	0.857
EL2	The manager sets aside time for direct communication with employees and listens to them.	3.67	0.69	0.806
EL3	The manager attends to employees' needs and takes into account their work-related circumstances.	3.65	0.72	0.817
Dimension: Power sharing				

Code	Item	Mean	SD	Loading
EL4	The manager allows employees to take part in important decisions relating to their work.	3.68	0.82	0.843
EL5	The manager consults employees when setting the plans and directions of the department or unit.	3.59	0.74	0.838
EL6	The manager listens to employees' opinions and suggestions about developing the work.	3.68	0.75	0.849
Dimension: Concern for sustainability				
EL7	The manager is keen that work is carried out in a way that safeguards the environment.	3.66	0.76	0.843
EL8	The manager shows concern for sustainability issues and the conservation of resources.	3.74	0.71	0.758
EL9	The manager encourages the rational use of resources and the reuse or recycling of materials wherever possible.	3.65	0.76	0.851
Dimension: Ethical guidance				
EL10	The manager explains the rules of professional and ethical conduct adopted at work.	3.70	0.81	0.849
EL11	The manager makes clear what is expected of employees regarding commitment to integrity and professional honesty.	3.65	0.66	0.693
EL12	The manager encourages discussion of the ethical issues that employees may face while performing their tasks.	3.68	0.70	0.845
Dimension: Role clarification				
EL13	The manager defines the performance requirements expected of employees.	3.66	0.76	0.882
EL14	The manager clarifies each individual's responsibilities at work.	3.58	0.80	0.902
EL15	The manager clarifies work priorities and the tasks that need to be completed.	3.60	0.75	0.819
Dimension: Integrity				
EL16	The manager keeps the promises he or she makes to employees.	3.57	0.69	0.741
EL17	The manager's actions are consistent with his or her words.	3.68	0.70	0.788
EL18	The manager adheres to ethical conduct in dealing with employees.	3.70	0.73	0.832
Dimension: Fairness				
EL19	The manager holds employees responsible for problems that are beyond their control. (reversed)	4.40	0.62	0.791
EL20	The manager pursues his or her own interests at the expense of employees. (reversed)	4.43	0.66	0.810
EL21	The manager manipulates employees to achieve his or her own ends. (reversed)	4.43	0.64	0.780
Dimension: Superior service				
OE1	The college provides educational and administrative services that meet the needs of students and service users at a distinguished level.	3.41	0.73	0.812

Code	Item	Mean	SD	Loading
OE2	The college resolves problems and errors in the delivery of its services promptly and through clear procedures.	3.29	0.81	0.845
OE3	The college is keen on the continuous improvement of its educational and administrative services.	3.41	0.64	0.829
Dimension: Reputation				
OE4	The college enjoys a positive reputation in the local community.	3.35	0.69	0.808
OE5	The college is held in positive regard in comparison with peer colleges.	3.34	0.74	0.824
OE6	The college's outputs enjoy the confidence of beneficiaries, such as students and the bodies that benefit from graduates.	3.24	0.70	0.807
Dimension: Innovation				
OE7	The college adopts modern and innovative methods in education and administration.	3.39	0.71	0.841
OE8	The college encourages employees to put forward new ideas for developing the work.	3.40	0.71	0.810
OE9	The college introduces new programs or services that meet beneficiaries' needs.	3.35	0.70	0.857
Dimension: Employee excellence				
OE10	The college's employees are keen to achieve the goals set for their work.	3.51	0.71	0.806
OE11	The college's employees show an ability to respond to the challenges and tasks assigned to them.	3.49	0.71	0.770
OE12	A spirit of cooperation and teamwork prevails among the college's employees.	3.34	0.83	0.825
Dimension: Ethical climate				
EC1	Everyone in the college is expected to adhere to integrity, values, and institutional instructions.	3.16	0.87	0.510
EC2	Decisions in the college are based on the professional and ethical standards of academic work.	3.34	0.96	0.569
EC3	Faculty and staff abide by their legal, professional, and ethical responsibilities.	3.45	0.84	0.679
EC4	Ethical considerations are taken into account when decisions are made in the college.	3.23	0.82	0.590
EC5	Successful faculty and administrators are known for their commitment to ethical standards and institutional instructions.	3.33	0.87	0.688
EC6	The professional code of conduct adopted in the college is a reference for employees' behavior.	3.23	0.84	0.660
EC7	Employees show commitment to the principles and regulations adopted in the college.	3.23	0.91	0.656
EC8	Employees regard respect for instructions as part of professional and ethical responsibility.	3.28	0.89	0.656

Code	Item	Mean	SD	Loading
EC9	The well-being of the members of the college community and fairness in dealing with them receive primary attention.	3.51	0.84	0.506
EC10	Administrative decisions take into account the shared interests of the college community.	3.32	0.93	0.635
EC11	Employees seek to achieve what serves students, their colleagues, and the college.	3.23	0.88	0.587
EC12	Faculty and staff give priority to the collective interest over personal gain.	3.30	0.85	0.681
EC13	The values of cooperation and respect are given greater importance than narrow individual interests.	3.20	0.90	0.607
EC14	Members of the college community care about one another's safety and well-being.	3.23	0.84	0.598
EC15	The college environment encourages individuals to act according to their ethical convictions.	3.24	0.95	0.543
EC16	Faculty and staff are trusted to exercise ethical judgment in performing their work.	3.45	0.84	0.665
EC17	Employees are expected to uphold both personal and institutional ethics.	3.27	0.79	0.645
EC18	Professional practices in the college are guided by moral conscience and institutional values.	3.49	0.79	0.687
EC19	Work is evaluated by its contribution to enhancing the college's integrity and achieving its mission.	3.29	0.86	0.631
EC20	Employees are expected to give priority to preserving the college's ethical reputation and legitimate interests.	3.37	0.75	0.677
EC21	Ethical and responsible conduct is regarded as an essential part of professionalism in the college.	3.18	0.86	0.719
EC22	The college values competence and excellence when they are achieved by ethical means.	3.36	0.89	0.592
EC23	Employees bear responsibility for the optimal and ethical use of the college's resources.	3.07	0.82	0.553
EC24	Mastery of one's work is viewed as part of the ethical responsibility toward the college.	3.35	0.81	0.591
EC25	Employees are expected to direct their efforts in line with the college's ethical values and strategic goals.	3.30	0.79	0.640
EC26	Employees strive to take actions that serve the good of students, society, and the public interest.	3.41	0.90	0.680

Source: Prepared by the researchers on the basis of the statistical analysis output.

Testing the Second Hypothesis (Correlations)

The second hypothesis stated that "there is a statistically significant correlation between the dimensions of ethical leadership and the dimensions of organizational excellence." It was tested using Pearson's correlation coefficient, and the strength of the relationships was

interpreted according to Cohen's [63] classification: weak (0.10–0.29), moderate (0.30–0.49), and strong (0.50 and above).

Table 9. Matrix of Pearson correlation coefficients between the dimensions of ethical leadership and the dimensions of organizational excellence (n = 99)

Dimensions of ethical leadership	Superior service	Reputation	Innovation	Employee excellence
People orientation	0.413**	0.540**	0.566**	0.505**
Power sharing	0.334**	0.486**	0.343**	0.450**
Concern for sustainability	0.447**	0.491**	0.507**	0.455**
Ethical guidance	0.317**	0.349**	0.368**	0.304**
Role clarification	0.405**	0.463**	0.459**	0.409**
Integrity	0.411**	0.410**	0.480**	0.319**
Fairness	0.388**	0.365**	0.338**	0.333**
Correlation between the overall indices of the two variables: r = 0.581**				

Source: Prepared by the researchers on the basis of the statistical analysis output. (**) Significant at the 0.01 level (two-tailed).

Table 9 shows that all twenty-eight relationships are positive and significant at 0.01, ranging from 0.304 to 0.566: four are strong and twenty-four moderate. The strongest are between people orientation and innovation (0.566), reputation (0.540), and employee excellence (0.505), and between concern for sustainability and innovation (0.507); the weakest is between ethical guidance and employee excellence (0.304). The prominence of people orientation may be read, as a theoretical interpretation whose mechanism was not tested in this study, through social exchange theory, whereby a leader's concern for employees is reciprocated with stronger commitment to performance. The overall correlation was 0.581 (strong); it differs slightly from the path coefficient of 0.592 in Table 10 because Pearson's r uses unweighted composite means whereas the path coefficient uses weighted latent scores. Holm adjustment for the twenty-eight tests left all relationships significant (highest adjusted p = 0.004). Comparisons among individual dimensions are exploratory because of overlap within each variable. H2 is accepted. Figure 4 presents the matrix as a heat map.

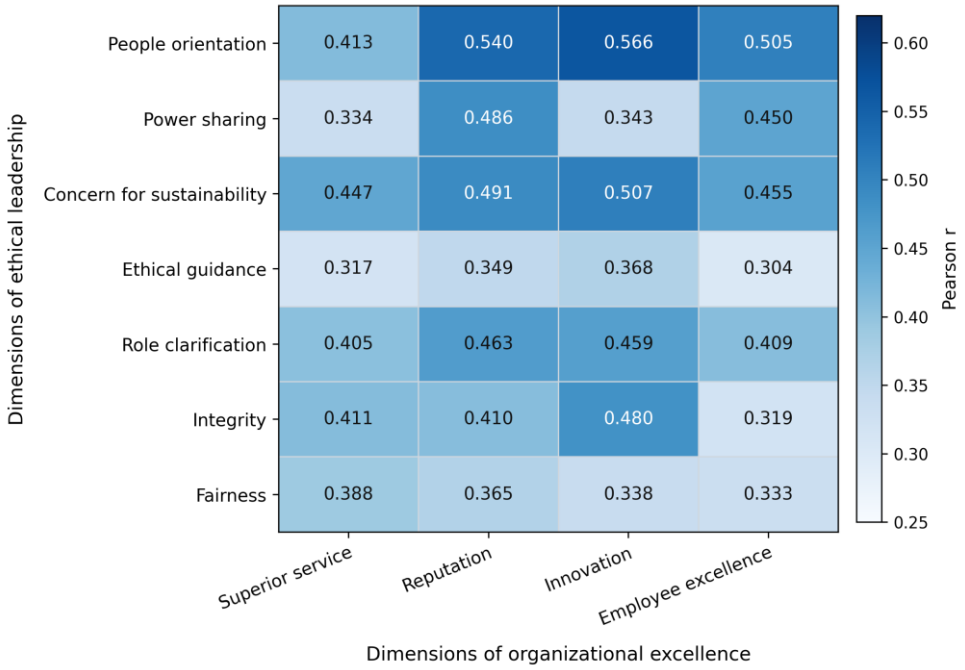


Figure 4. Heat map of the correlation coefficients between the dimensions of ethical leadership and the dimensions of organizational excellence (n = 99)
Source: Prepared by the researchers on the basis of the statistical analysis output. All coefficients are significant at the 0.01 level.

Testing the Third Hypothesis (Assessment of the Structural Model: Two-Variable Model)
The third hypothesis stated that "there is a positive and statistically significant structural path from ethical leadership to organizational excellence." To test it, the structural model was estimated using the PLS algorithm with the path weighting scheme, and standard errors were estimated by bootstrapping with 5,000 subsamples, a 95% percentile confidence interval, and a two-tailed test. Explanatory power was assessed by the coefficient of determination (R^2), and effect size by the f^2 index, whose values of 0.02, 0.15, and 0.35 are regarded as small, medium, and large respectively [63].

Table 10. Results of the test of the direct path from ethical leadership to organizational excellence (two-variable model, without ethical climate)

Indicator	Value
Path	Effect of ethical leadership on organizational excellence
Standardized path coefficient (β)	0.592
Standard error	0.062
t-value	9.61
p-value	< 0.001
95% confidence interval (percentile)	0.475 – 0.713
Coefficient of determination (R^2)	0.350
Effect size (f^2)	0.54 (large)
Decision	The third hypothesis is accepted

Source: Prepared by the researchers on the basis of the statistical analysis output (n = 99; 5,000 subsamples). The estimates differ from the direct path in Table 13 and Figure 5 (β = 0.557; R^2 = 0.401), which come from the three-variable model that includes ethical climate.

The standardized path coefficient was β = 0.592, positive and significant (t = 9.61, p < 0.001), with a confidence interval (0.475–0.713) excluding zero. R^2 = 0.350, so ethical leadership explains 35.0% of the variance in organizational excellence (moderate), and f^2 = 0.54 indicates

a large effect: a one-standard-deviation rise in ethical leadership is associated with a rise of about 0.59 standard deviations in organizational excellence. H3 is accepted. This does not prove causation; the cross-sectional, single-questionnaire design supports only a positive association, and "path coefficient" is used in its statistical sense. As a sensitivity check, the second stage was re-estimated with ethical leadership as a reflective–formative construct (Mode B): the path stayed positive and significant (β = 0.645, t = 13.92, CI 0.580–0.759, R^2 = 0.416), with VIFs among dimensions of 2.17–3.29. Table 10-a gives the dimension weights and loadings. Only the weights of people orientation (0.665) and concern for sustainability (0.435) had intervals excluding zero; the other five included zero, including negative weights for ethical guidance (−0.244) and power sharing (−0.097), while all loadings were positive and high (0.614–0.928). Figure 5 shows the estimated structural model with its three variables (ethical leadership, ethical climate, and organizational excellence), whose path estimates are presented in Table 13 in the section on testing H4–H6; the two-variable model reported in Table 10 is the basis for testing H3.

Table 10-a. Weights and loadings of the ethical leadership dimensions in the sensitivity analysis (formative specification, Mode B)

Dimension	Weight	95% confidence interval for the weight	Loading
People orientation	0.665	0.255 – 1.040	0.928
Power sharing	−0.097	−0.475 – 0.328	0.733
Concern for sustainability	0.435	0.052 – 0.833	0.868
Ethical guidance	−0.244	−0.616 – 0.157	0.614
Role clarification	0.234	−0.145 – 0.596	0.791
Integrity	0.018	−0.386 – 0.356	0.742
Fairness	0.044	−0.351 – 0.382	0.644

Source: Prepared by the researchers on the basis of the statistical analysis output (n = 99; 5,000 subsamples).

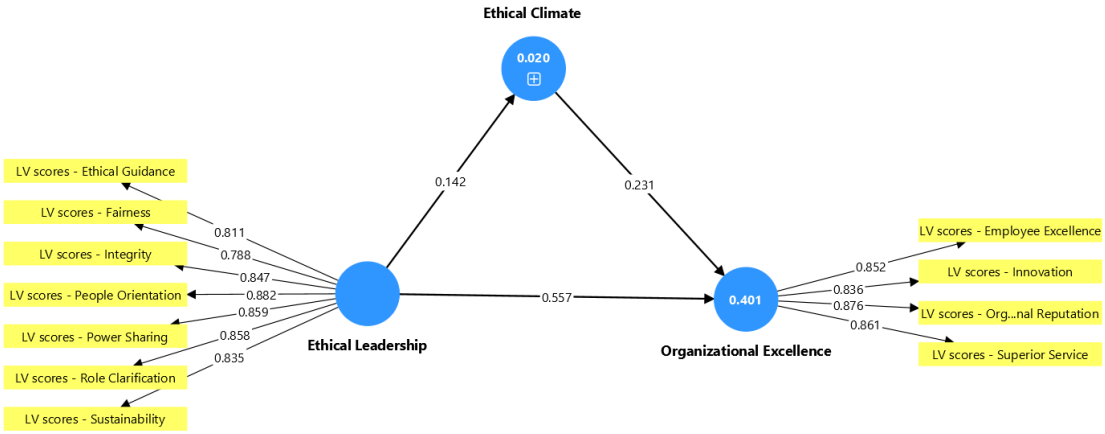


Figure 5. The estimated structural model with the three variables (dimension loadings, path coefficients, and coefficients of determination)
Source: Prepared by the researchers on the basis of the statistical analysis output.

Additional analysis: the relative effect of the dimensions of ethical leadership
Multiple regression entered the seven dimensions together as predictors of the overall organizational excellence index. VIFs ranged from 2.17 to 3.29, below the threshold of 5, though indicating fairly high intercorrelation among dimensions.

Table 11. Results of the multiple regression of the dimensions of ethical leadership on organizational excellence

Dimension	Standardized β	Standard error	t-value	p	VIF
People orientation	0.417	0.146	2.85	0.005	3.29
Power sharing	−0.054	0.137	−0.40	0.694	2.87
Concern for sustainability	0.277	0.126	2.19	0.031	2.45
Ethical guidance	−0.162	0.124	−1.31	0.195	2.37
Role clarification	0.154	0.135	1.14	0.258	2.81
Integrity	0.008	0.137	0.06	0.955	2.88
Fairness	0.037	0.119	0.31	0.758	2.17
$R^2 = 0.409$; Adjusted $R^2 = 0.364$; $F(7, 91) = 9.00$; $p < 0.001$					

Source: Prepared by the researchers on the basis of the statistical analysis output.

The model is significant ($F = 9.00$, $p < 0.001$) and explains 40.9% of the variance in organizational excellence. Only two dimensions had 95% intervals excluding zero: people orientation (β = 0.417; 0.127–0.708) and concern for sustainability (β = 0.277; 0.026–0.528); the other five included zero despite significant correlations in Table 9. This does not mean these two have larger effects than all others: a direct bootstrap comparison showed that people orientation exceeds only power sharing, ethical guidance, and fairness, and does not differ significantly from concern for sustainability, role clarification, or integrity. Residual diagnostics did not reject normality (Shapiro–Wilk $p = 0.051$) or show heteroscedasticity (Breusch–Pagan $p = 0.36$), although non-significance does not prove the assumptions hold and the Shapiro–Wilk value is near the threshold. Figure 6 shows no systematic pattern or widening spread in the residual-versus-fitted plot and a slight deviation at the upper end of the Q–Q plot; no case had Cook's distance above 0.10. When the eight cases exceeding 4/n were excluded, concern for sustainability remained significant (β = 0.305, $p = 0.009$), but the people orientation coefficient fell from β = 0.417 (CI 0.127–0.708, $p = 0.005$) to β = 0.214 (CI −0.038–0.466, $p = 0.096$). Its significance is therefore sensitive to the exclusion of these cases, though not necessarily caused by them, as exclusion also changes the sample and reduces power. Since there are no independent grounds for excluding them, full-sample results remain the basis for interpretation. The weak unique contribution of most dimensions probably reflects their high overlap shown by HTMT, so this analysis is exploratory, and the non-significant negative coefficients (power sharing, ethical guidance) should not be read as reverse effects.

Notably, although power sharing and ethical guidance exhibited positive bivariate correlations with all organizational excellence dimensions ($r = 0.304$ to 0.486, $p < 0.01$; Table 9), their partial regression weights turned slightly negative and non-significant when entered simultaneously with the remaining dimensions (β = −0.054, $p = 0.694$ and β = −0.162, $p = 0.195$, respectively). This pattern reflects classical statistical suppression arising from substantial shared variance among the ethical leadership subscales (within-construct HTMT > 0.85; VIFs = 2.17–3.29), rather than an adverse effect of these behaviors on excellence. Accordingly, individual regression weights should not be interpreted in isolation from the collective leadership construct.

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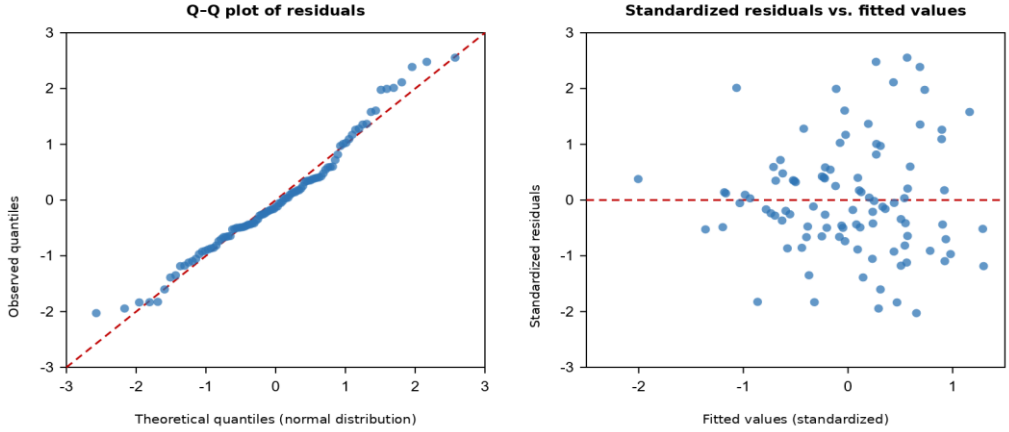


Figure 6. Residual diagnostics for the multiple regression model (Table 11)
Source: Prepared by the researchers on the basis of the statistical analysis output (n = 99). The dashed line: zero in the right-hand plot, and the line of agreement with the normal distribution in the left-hand plot.

Testing Hypotheses 4–6 (the Mediation Model)

To test H4–H6, the mediation model was estimated in SmartPLS (version 4.1.2.1) with the same embedded two-stage approach, adding ethical climate (26 items) as a mediating variable between ethical leadership and organizational excellence while retaining the direct path between them, using the PLS algorithm, the path-weighting scheme, and standardized results. Bootstrapping used 5,000 subsamples, a two-tailed test at the 0.05 level, and 95% percentile intervals. The software's bootstrap holds the dimension scores from the first stage fixed and re-estimates only the second stage, so its intervals do not capture the full uncertainty of both stages. The Python estimation, which re-estimated both stages in every subsample, gave similar results (indirect effect 0.033, with a confidence interval from −0.013 to 0.119; direct path 0.557). The indicators of the measurement of ethical climate were presented above (Tables 5, 6, and 8); notably, its average variance extracted (0.394) is below the acceptable threshold, which limits the interpretation of its paths. Table 12 shows the correlation of ethical climate with ethical leadership and organizational excellence and their dimensions.

Table 12. Pearson correlation coefficients between ethical climate and the overall indices and dimensions (n = 99)

Variable or dimension	Correlation coefficient (r)	p-value
Ethical leadership (overall index)	0.091	0.368
People orientation	0.148	0.143
Power sharing	0.065	0.526
Concern for sustainability	0.073	0.474
Ethical guidance	0.064	0.528
Role clarification	0.044	0.663
Integrity	0.043	0.670
Fairness	0.110	0.280
Organizational excellence (overall index)	0.234	0.020
Superior service	0.228	0.023
Reputation	0.102	0.316
Innovation	0.156	0.124
Employee excellence	0.310	0.002

Source: Prepared by the researchers on the basis of the statistical analysis output (n = 99).

Correlations are computed on the unweighted means of the items, without correction for multiple testing.

Table 12 shows that the correlation of ethical climate with ethical leadership is weak and not significant (r = 0.091, p = 0.368), and it was not significant for any of the seven dimensions (0.043 to 0.148), whereas it correlated positively, weakly, and significantly with organizational excellence (r = 0.234, p = 0.020); at the dimension level only its correlations with employee excellence (r = 0.310, p = 0.002) and superior service (r = 0.228, p = 0.023) were significant. Because these correlations were not corrected for multiple testing, the correlation with superior service in particular should be viewed with caution. Table 13 presents the estimates of the mediation model.

Table 13. Results of estimating the mediation model (SmartPLS 4.1.2.1, bootstrap with 5,000 subsamples)

Path or indicator	Estimate	Standard error	t-value	95% CI (percentile)	Decision
Effect of ethical leadership on ethical climate (a)	0.142	0.153	0.93	−0.213 – 0.443	Not significant (p = 0.354): H4 rejected
Effect of ethical climate on organizational excellence (b)	0.231	0.105	2.20	0.047 – 0.420	Significant (p = 0.028): H5 supported by the data
Direct effect of ethical leadership on organizational excellence (c′)	0.557	0.068	8.18	0.400 – 0.669	Significant (p < 0.001)
Indirect effect (a × b)	0.033	0.033	0.98	−0.016 – 0.126	Not significant (p = 0.326): H6 rejected
Total effect (c′ + a × b)	0.590	—	—	—	—
R^2 (adjusted): ethical climate / organizational excellence	0.020 (0.010) / 0.401 (0.388)	—	—	—	—
f^2 (a) / (b) / (c′)	0.021 / 0.088 / 0.507	—	—	—	—

Source: Prepared by the researchers on the basis of the statistical analysis output (n = 99). Standardized path coefficients; the variance inflation factor between ethical leadership and ethical climate is 1.02.

Testing H4: H4 stated that ethical leadership has a positive and significant effect on ethical climate. The path coefficient was β = 0.142 (t = 0.93, p = 0.354), with a standard error of 0.153 and a confidence interval (−0.213 to 0.443) that includes zero, and ethical leadership explained only 2.0% of the variance in ethical climate (f^2 = 0.021). H4 is therefore rejected: there is no evidence that the perception of the immediate supervisor's ethical leadership is related to the perception of the ethical climate in the college.

Testing H5: H5 stated that ethical climate has a positive and significant effect on organizational excellence, controlling for ethical leadership. The path coefficient was β = 0.231 (t = 2.20, p = 0.028), with a confidence interval (0.047 to 0.420) that excludes zero and an effect size of f^2 = 0.088. The data therefore supported H5, with a small effect size and the reservation concerning the validity of the measurement of ethical climate, as the lower bound of the confidence interval is close to zero.

Testing H6: H6 stated that ethical climate mediates the relationship between ethical leadership

and organizational excellence. The indirect effect was a × b = 0.033 (t = 0.98, p = 0.326), with a standard error of 0.033 and a confidence interval (−0.016 to 0.126) that includes zero; it represents about 5.6% of the total effect (0.590). H6 is therefore rejected, and mediation was not supported. The direct effect remained significant (β = 0.557, CI 0.400 to 0.669), which does not imply partial mediation as long as the indirect effect is unsupported, and the coefficient of determination for organizational excellence rose to 0.401, compared with 0.350 in the model without ethical climate. The total effect (0.590) is close to the path coefficient in the two-variable model (0.592), the slight difference being due to re-estimating the first stage with ethical climate included. Figures 5 and 7 show the model estimates. This result does not indicate an absence of mediation in the population; it means only that these data did not provide sufficient evidence of it, taking into account the sample size (see the sensitivity analysis below) and the weak convergent validity of the ethical climate scale.

Sensitivity of the mediation test. Because H6 was rejected on the basis of a non-significant indirect effect, a sensitivity analysis examined which indirect effects a sample of 99 can detect. A Monte Carlo simulation of a three-variable mediation model with standardized variables was run (2,000 replications per condition; direct path fixed at 0.557; n = 99; α = 0.05, two-tailed), with equal a and b paths from 0.10 to 0.40. The indirect effect was tested with the Monte Carlo confidence-interval method (2,000 draws per replication) and, for comparison, with the joint-significance test (random seed 20261114). The simulation uses ordinary least squares regression and is therefore an approximation of the PLS-SEM estimation, and its effect sizes are hypothetical values, not the observed estimates.

Table 14. Power of the indirect-effect test at n = 99 under equal a and b paths (Monte Carlo simulation)

Equal path coefficients (a = b)	Indirect effect (a × b)	Power (Monte Carlo confidence interval)	Power (joint significance)
0.10	0.010	0.03	0.03
0.15	0.022	0.12	0.14
0.20	0.040	0.33	0.35
0.25	0.062	0.62	0.63
0.30	0.090	0.84	0.84
0.35	0.122	0.95	0.95
0.40	0.160	0.99	0.99

Source: Prepared by the researchers on the basis of a simulation (2,000 replications per condition; n = 99; direct path = 0.557).

Power reached 0.80 at equal paths between 0.25 and 0.30, which corresponds to an indirect effect of roughly 0.09. With n = 99 the study could therefore reliably detect indirect effects of that size or larger (two medium-sized paths) but had low power for smaller ones (0.33 at a = b = 0.20, an indirect effect of 0.04). The non-significant indirect effect (0.033) accordingly does not rule out small to moderate mediation in the population.

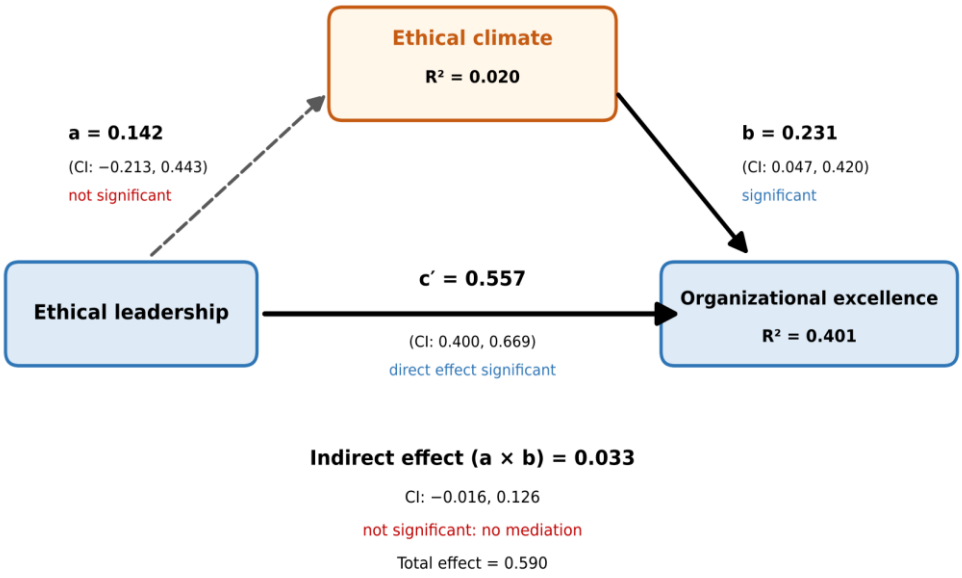


Figure 7. Estimates of the mediation model (ethical leadership, then ethical climate as mediator, then organizational excellence)
Source: Prepared by the researchers on the basis of the statistical analysis output (n = 99; 5,000 subsamples).

Interpretation and Implications

The study set out to diagnose the role of ethical leadership in organizational excellence, and to analyze the correlational and structural relationships between their dimensions, from the perspective of human resources at the College of Administration and Economics, University of Kufa.

Summary of Empirical Findings

1.H1. Mean perceived ethical leadership (3.76) significantly exceeded the high-level threshold (3.40), as did all seven dimensions; fairness ranked first (4.42) and role clarification last (3.61). Perceived organizational excellence averaged 3.38, and there was insufficient evidence that it or any of its four dimensions exceeded 3.40; reputation was lowest (3.31). H1(a) is accepted and H1(b) is rejected, the latter meaning only an absence of sufficient evidence of a high level, not proof that perceived excellence is moderate.

2.Measurement model. The second-order model met criteria for composite reliability (0.944 and 0.917), convergent validity (AVE = 0.706 and 0.733), and discriminant validity between the two variables (HTMT = 0.642). Discriminant validity among dimensions within each variable was not established for many pairs (HTMT > 0.85 in 16 of 27, with the interval reaching 1 in 11). Main results are therefore interpreted at the level of the two overall variables, the hierarchical structure needs further verification, and individual-dimension results are exploratory.

3.H2. All twenty-eight dimension-level correlations were positive and significant (0.304–0.566), with an overall correlation of 0.581; H2 is accepted. The direction agrees with Taamneh et al. [4], who found a positive effect of ethical leadership in higher education, and with Shaban [5], who tied excellence in universities to leadership capabilities.

4.H3. Ethical leadership predicted organizational excellence ($\beta = 0.592$, $t = 9.61$, $p < 0.001$), explaining 35.0% of its variance ($f^2 = 0.54$); H3 is accepted. The path remained positive and significant under a formative specification ($\beta = 0.645$). In the exploratory regression, the intervals for people orientation and concern for sustainability excluded zero, but the significance of people orientation was sensitive to excluding influential cases, and the non-significance of other dimensions probably reflects their overlap.

5.Ethical climate. It was measured with 26 items and showed high reliability (Cronbach's alpha = 0.940, composite reliability = 0.944), but its average variance extracted was 0.394 and

loadings ranged from 0.506 to 0.719, so convergent validity was not achieved by the usual criterion (0.50), whereas discriminant validity from ethical leadership and organizational excellence was achieved (HTMT = 0.15 and 0.27). Its mean was 3.30 (CI 3.20–3.41), and there was insufficient evidence that it exceeded the high-level threshold (3.40).

6.H4–H6 (mediation). Mediation was not supported. The effect of ethical leadership on ethical climate was weak, positive, and not significant (β = 0.142, 95% CI: −0.213 to 0.443, R^2 = 0.02), so H4 is rejected. The effect of ethical climate on organizational excellence, controlling for ethical leadership, was positive and significant (β = 0.231, CI: 0.047 to 0.420, f^2 = 0.09), so the data supported H5, with a small effect size and the reservation concerning the validity of the measurement of ethical climate. The indirect effect was 0.033 (CI: −0.016 to 0.126) and not significant, so H6 is rejected. The direct effect of ethical leadership remained significant (β = 0.557, CI: 0.400 to 0.669), and the model explained 40.1% of the variance in organizational excellence.

Interpretation of Results

Within ethical leadership, fairness recorded a markedly higher mean (M = 4.42, SD = 0.51) than the remaining six dimensions (M = 3.61–3.68). Beyond genuine adherence to procedural equity by department heads, this divergence likely reflects a reverse-wording and social-desirability asymmetry: fairness was the only subscale composed entirely of negatively worded items describing overt supervisor misconduct (e.g., blaming staff for uncontrollable problems or exploiting them for personal gain; EL19–EL21). In public-sector administrative hierarchies, respondents tend to reject explicit accusations of managerial exploitation more decisively than they endorse positively framed proactive behaviors, thereby inflating reverse-scored means.

The main finding is that employees who perceive their immediate supervisors as ethical also tend to perceive the college as excellent (r = 0.581, β = 0.592), and this held under a change of measurement specification and after correction for multiple testing. The direction fits social learning theory, in which the ethical leader models acceptable standards [1], and social exchange, in which a leader's treatment of employees is reciprocated in commitment and effort. An alternative explanation cannot be excluded: both variables came from the same respondent at the same time, so part of the correlation may reflect a general tendency to rate one's workplace favorably or unfavorably. The study therefore provides evidence that the two perceptions co-occur, not of the mechanism linking them.

Perceived ethical leadership (3.76) was high while perceived excellence (3.38) was not shown to be. One possible reason is context: the leadership rated is direct, at department or unit level, whereas excellence, particularly reputation, service, and innovation, depends on college- and university-level decisions. In Iraqi public universities, decisions such as introducing programs, allocating resources, and making appointments are tied to centralized systems that limit what an immediate leader can do, so a supervisor may be seen as ethical without having the authority to turn this into institutional excellence. Conceptually, this is a cross-level gap, because leadership is rated at the level of the immediate supervisor and excellence at the level of the college [6]. This explanation was not tested; later studies could test it by measuring centralization or delegated authority as a moderator.

The data did not support the mediating role of ethical climate: perceived ethical leadership was not significantly correlated with perceived ethical climate (r = 0.091, p = 0.368), which contradicts the findings of earlier studies that ethical leadership relates to ethical climate and that this climate mediates its effect on employee outcomes [44] [48] [45]. By contrast, a weak positive correlation appeared between ethical climate and organizational excellence (r = 0.234, p = 0.020), concentrated in employee excellence (r = 0.310) and superior service (r = 0.228), which is consistent with the role proposed theoretically for ethical climate as a tributary of these two dimensions. Possible explanations for the absence of an indirect effect are that the leadership rated is the behavior of the immediate supervisor, whereas ethical climate measures employees' perception of the climate of the college in general, which is influenced by factors beyond the immediate supervisor (a design that assessed ethical climate for each supervisor's own department or unit would test this explanation); that the ethical climate scale did not achieve an acceptable average variance extracted, which may weaken the estimation of its

paths; and that the sample size does not allow reliable detection of a small indirect effect (Table 14). These are proposed explanations that the study did not test, and the absence of significance should not be interpreted as evidence of the absence of mediation in the population.

Study Limitations

The findings of the study are subject to a number of limitations, chief among them: (1) the sample (99) rests on voluntary participation, its size alone does not establish representativeness, it cannot detect small unique effects of single dimensions, and some responses were excluded as non-serious; (2) the cross-sectional design does not permit causal conclusions; (3) the ethical leadership scale is an abridged form (21 items) of the original, and the excellence scale is adapted from a banking service-excellence model; (4) the sub-dimensions within each variable were not statistically distinct (HTMT > 0.85 in 16 of 27 pairs; interval reaching 1 in 11), and alpha for integrity (0.695) lies at the edge of acceptability, so dimension-level results are interpreted cautiously; (5) data come from a single source at a single time, raising the risk of common-source bias, and fairness is the only negatively worded dimension, so its high mean may reflect wording; (6) the unit of analysis is individual perception, and respondents sharing a supervisor may give correlated answers, which could not be examined because department and unit were not recorded; (7) formal human resource practices were not measured in this study, so their mediating role was not tested and remains proposed for later studies; (8) the ethical climate scale did not achieve an acceptable average variance extracted (0.394), it is an Arabic version whose validity had not previously been verified, and it measures employees' perception of the climate of the college in general, whereas the leadership scale evaluates the behavior of the immediate supervisor; (9) the sample size (99) provides 80% power only for indirect effects of about 0.09 or larger (Table 14); (10) part of the data was collected with a paper version that the researcher entered manually into the electronic form, and paper and electronic questionnaires were not distinguished in the file, so the effect of the collection method could not be examined; (11) the bootstrap in SmartPLS for the mediation model fixed the first-stage scores and did not re-estimate them in each subsample, and the study did not independently examine the procedures for linking responses on ethical climate to the same respondents; (12) the study did not measure transformational, authentic, or servant leadership, so the distinct contribution of ethical leadership beyond these styles could not be assessed [16] [17].

Conclusions and Recommendations

In the College of Administration and Economics at the University of Kufa, staff who rated their immediate supervisors more highly on ethical leadership also rated the college more highly on organizational excellence. The direct association remained statistically significant after ethical climate was included in the model. Ethical climate did not mediate the relationship. The findings support attention to supervisors' ethical conduct and to service reputation, which was the lowest-rated dimension of organizational excellence.

Practical Recommendations

1. Because perceived excellence did not exceed the high threshold and reputation was lowest (3.31), the college should prioritize beneficiaries' confidence in its outputs (item OE6) and prompt, clearly proceduralized handling of service problems (item OE2). Because ethical leadership as a whole, not its separate dimensions, was associated with perceived excellence, its practices should be strengthened collectively, for example through regular channels of personal communication between leaders and staff and programs for rational use of resources.
2. In HRM, include ethical-conduct standards in selecting candidates for leadership posts (heads of departments and divisions) and in evaluating their performance, and design leadership development programs addressing ethical leadership behaviors collectively.

Future Research

3. Conduct broader studies across several universities in the Ministry of Higher Education, and studies of the relationship between employees' ethical behavior and ethical

leadership in the public and private sectors.

4. Future studies should extend this framework across multiple public and private Iraqi universities with larger stratified samples (N ≥ 250) to achieve adequate statistical power for detecting small-to-moderate indirect effects. Crucially, researchers should align the level of measurement between predictor and mediator by assessing ethical climate at the academic department or administrative unit level—matching the immediate supervisor referent—and recording unit membership to enable multilevel structural equation modeling [6].
5. Employ time-lagged data collection or incorporate external stakeholder indicators (such as student satisfaction and graduate employability metrics) alongside full, validated scales—with reverse-worded items balanced across dimensions—to disentangle perceptual co-occurrence from causal institutional mechanisms.

Declarations

Informed consent and confidentiality. Participation in the questionnaire was voluntary, and completing it was taken as the participant's consent to take part. Responses were treated with full confidentiality.

Conflict of interest. The authors declare no conflict of interest.

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Data and code availability. The anonymized coded item-level data (without demographic variables or timestamps), the analysis code, and the output are held in a supplementary-materials file that is submitted with the manuscript and available to reviewers on request.

References

[1] M. E. Brown, L. K. Treviño, and D. A. Harrison, "Ethical leadership: A social learning perspective for construct development and testing," Organizational Behavior and Human Decision Processes, vol. 97, no. 2, pp. 117–134, 2005, doi: 10.1016/j.obhdp.2005.03.002.

[2] K. Kalshoven, D. N. Den Hartog, and A. H. De Hoogh, "Ethical leadership at work questionnaire (ELW): Development and validation of a multidimensional measure," The Leadership Quarterly, vol. 22, no. 1, pp. 51–69, 2011, doi: 10.1016/j.leaqua.2010.12.007.

[3] T. J. Peters and R. H. Waterman, In search of excellence: Lessons from America's best-run companies, Harper & Row, 1982.

[4] M. Taamneh, N. Aljawarneh, M. Al-Okaily, A. Taamneh, and A. Al-Oqaily, "The impact of ethical leadership on organizational citizenship behavior in higher education: The contingent role of organizational justice," Cogent Business & Management, vol. 11, no. 1, Art. no. 2294834, 2024, doi: 10.1080/23311975.2023.2294834.

[5] E. A. Shaban, "The role of strategic agility in achieving organizational excellence in Jordanian universities," Cogent Business & Management, vol. 11, no. 1, Art. no. 2384614, 2024, doi: 10.1080/23311975.2024.2384614.

[6] S. W. J. Kozlowski and K. J. Klein, "A multilevel approach to theory and research in organizations: Contextual, temporal, and emergent processes," in Multilevel theory, research, and methods in organizations: Foundations, extensions, and new directions, K. J. Klein & S. W. J. Kozlowski, Eds., Jossey-Bass, 2000, pp. 3–90.

[7] S. Hunter, "(Un)ethical leadership and identity: What did we learn and where do we go from here?" Journal of Business Ethics, vol. 107, no. 1, pp. 79–87, 2012.

[8] L. K. Treviño, L. P. Hartman, and M. Brown, "Moral person and moral manager: How executives develop a reputation for ethical leadership," California Management Review, vol. 42, no. 4, pp. 128–142, 2000.

[9] D. Knights and M. O'Leary, "Leadership, ethics and responsibility to the Other," Journal of Business Ethics, vol. 67, no. 2, pp. 125–137, 2006.

[10] K. O'Leary, "The effects of safety culture and ethical leadership on safety performance," Ph.D. dissertation, Embry-Riddle Aeronautical University, 2016.

[11] G. Yukl, R. Mahsud, S. Hassan, and G. E. Prussia, "An improved measure of ethical leadership," Journal of Leadership & Organizational Studies, vol. 20, no. 1, pp. 38–48, 2013.

[12] S. van Gils, N. Van Quaquebeke, D. van Knippenberg, M. van Dijke, and D. De Cremer, "Ethical leadership and follower organizational deviance: The moderating role of follower moral attentiveness," The Leadership Quarterly, vol. 26, no. 2, pp. 190–203, 2015.

[13] F. O. Walumbwa, C. A. Hartnell, and E. Misati, "Does ethical leadership enhance group learning behavior? Examining the mediating influence of group ethical conduct, justice climate, and peer justice," Journal of Business Research, vol. 72, pp. 14–23, 2017.

[14] H. G. Metcalfe, "Ethical leadership of the successor subsequent to the ethical failure of the predecessor: Creating an organizational phoenix," Ph.D. dissertation, The George Washington University, 2011.

[15] M. E. Brown and L. K. Treviño, "Ethical leadership: A review and future directions," The Leadership Quarterly, vol. 17, no. 6, pp. 595–616, 2006.

[16] T. W. H. Ng and D. C. Feldman, "Ethical leadership: Meta-analytic evidence of criterion-related and incremental validity," Journal of Applied Psychology, vol. 100, no. 3, pp. 948–965, 2015, doi: 10.1037/a0038246.

[17] J. E. Hoch, W. H. Bommer, J. H. Dulebohn, and D. Wu, "Do ethical, authentic, and servant leadership explain variance above and beyond transformational leadership? A meta-analysis," Journal of Management, vol. 44, no. 2, pp. 501–529, 2018, doi: 10.1177/0149206316665461.

[18] A. Sajjad, G. Eweje, and M. M. Raziq, "Sustainability leadership: An integrative review and conceptual synthesis," Business Strategy and the Environment, vol. 33, no. 4, pp. 2849–2867, 2024, doi: 10.1002/bse.3631.

[19] I. Zdrilić and Ž. Dulčić, "Business excellence as a success factor for the performance of large Croatian enterprises," Management: Journal of Contemporary Management Issues, vol. 21, no. 1, pp. 145–162, 2016.

[20] D. Collins, "Designing ethical organizations for spiritual growth and superior performance: An organization systems approach," Journal of Management, Spirituality and Religion, vol. 7, no. 2, pp. 95–117, 2010.

[21] H. S. Al-Dhaafri, R. Z. B. Yusoff, and A. K. Al-Swidi, "The effect of total quality management, enterprise resource planning and the entrepreneurial orientation on the organizational performance: The mediating role of the organizational excellence—A proposed research framework," International Journal of Business Administration, vol. 4, no. 1, pp. 66–85, 2013.

[22] M. S. Al-Amarat, "The degree at which administrative leaderships in Tafila Technical University practice the requirements of organizational excellence from the perspective of the faculty members," World Journal of Education, vol. 9, no. 3, pp. 9–21, 2019.

[23] F. D. Correia, A. M. Carvalho, N. Campbell-Allen, and P. Sampaio, "A new approach to organisational excellence for small and medium enterprises: The QOE-SME model," Total Quality Management & Business Excellence, pp. 1–25, 2020.

[24] A. Shirvani and S. Javad Iranban, "Organizational excellence performance and human force productivity promotion: A case study in South Zagros Oil and Gas Production Company, Iran," European Online Journal of Natural and Social Sciences: Proceedings, vol. 2, no. 3s, Art. no. 3010, 2014.

[25] S. Kazemian, R. Abdul Rahman, Z. Mohd Sanusi, and A. A. Adewale, "Role of market orientation in sustainable performance: The case of a leading microfinance provider," Humanomics, vol. 32, no. 3, pp. 352–375, 2016.

[26] C. Zehir, H. Yıldız, M. Köle, and D. Başar, "Superior organizational performance through SHRM implications, mediating effect of management capability: An implementation on Islamic banking," Procedia – Social and Behavioral Sciences, vol. 235, pp. 807–816, 2016.

[27] J. Nenadál, D. Vykydal, and D. Waloszek, "Organizational excellence: Approaches, models and their use at Czech organizations," Quality Innovation Prosperity, vol. 22, no. 2, pp. 47–64,

2018, doi: 10.12776/qip.v22i2.1129.

[28] H. Aghazadeh, "Strategic marketing management: Achieving superior business performance through intelligent marketing strategy," Procedia – Social and Behavioral Sciences, vol. 207, pp. 125–134, 2015, doi: 10.1016/j.sbspro.2015.10.161.

[29] D. D. Al-Eisawi, "Modelling service excellence: The case of the UK banking sector," Ph.D. dissertation, Coventry University, 2013. [Online]. Available: https://pureportal.coventry.ac.uk/en/studentTheses/modelling-service-excellence-the-case-of-the-uk-banking-sector/

[30] S. S. A. Naser and M. J. Al Shobaki, "Organizational excellence and the extent of its clarity in the Palestinian universities from the perspective of academic staff," International Journal of Information Technology and Electrical Engineering, vol. 6, no. 2, pp. 47–59, 2017.

[31] J. P. Thomassen and E. de Haan, How to create a service excellence organization, White paper on the European service excellence model and the European technical specification CEN/TS 16880 – Creating outstanding customer experiences through service excellence, 2016.

[32] C. J. Fombrun, Reputation: Realizing value from the corporate image, Harvard Business School Press, 1996.

[33] P. M. Feldman, R. A. Bahamonde, and I. Velasquez Bellido, "A new approach for measuring corporate reputation," Revista de Administração de Empresas, vol. 54, no. 1, pp. 53–66, 2014.

[34] L. P. K. Adeosun and R. A. Ganiyu, "Corporate reputation as a strategic asset," International Journal of Business and Social Science, vol. 4, no. 2, pp. 220–225, 2013.

[35] B. Schneider, M. G. Ehrhart, and W. H. Macey, "Organizational climate and culture," Annual Review of Psychology, vol. 64, pp. 361–388, 2013.

[36] B. Victor and J. B. Cullen, "The organizational bases of ethical work climates," Administrative Science Quarterly, vol. 33, no. 1, pp. 101–125, 1988, doi: 10.2307/2392857.

[37] L. K. Treviño, K. D. Butterfield, and D. L. McCabe, "The ethical context in organizations: Influences on employee attitudes and behaviors," Business Ethics Quarterly, vol. 8, no. 3, pp. 447–476, 1998.

[38] A. Arnaud, "Conceptualizing and measuring ethical work climate: Development and validation of the ethical climate index," Business & Society, vol. 49, no. 2, pp. 345–358, 2010.

[39] K. D. Martin and J. B. Cullen, "Continuities and extensions of ethical climate theory: A meta-analytic review," Journal of Business Ethics, vol. 69, no. 2, pp. 175–194, 2006.

[40] A. Simha and J. B. Cullen, "Ethical climates and their effects on organizational outcomes: Implications from the past and prophecies for the future," Academy of Management Perspectives, vol. 26, no. 4, pp. 20–34, 2012.

[41] A. Newman, H. Round, S. Bhattacharya, and A. Roy, "Ethical climates in organizations: A review and research agenda," Business Ethics Quarterly, vol. 27, no. 4, pp. 475–512, 2017.

[42] J. B. Cullen, B. Victor, and J. W. Bronson, "The Ethical Climate Questionnaire: An assessment of its development and validity," Psychological Reports, vol. 73, no. 2, pp. 667–674, 1993.

[43] M. Schminke, M. L. Ambrose, and D. O. Neubaum, "The effect of leader moral development on ethical climate and employee attitudes," Organizational Behavior and Human Decision Processes, vol. 97, no. 2, pp. 135–151, 2005.

[44] D. M. Mayer, M. Kuenzi, and R. L. Greenbaum, "Examining the link between ethical leadership and employee misconduct: The mediating role of ethical climate," Journal of Business Ethics, vol. 95, suppl. 1, pp. 7–16, 2010, doi: 10.1007/s10551-011-0794-0.

[45] Y. Shin, "CEO ethical leadership, ethical climate, climate strength, and collective organizational citizenship behavior," Journal of Business Ethics, vol. 108, no. 3, pp. 299–312, 2012.

[46] C.-S. Lu and C.-C. Lin, "The effects of ethical leadership and ethical climate on employee ethical behavior in the international port context," Journal of Business Ethics, vol. 124, no. 2,

pp. 209–223, 2014.

[47] M. Kuenzi, D. M. Mayer, and R. L. Greenbaum, "Creating an ethical organizational environment: The relationship between ethical leadership, ethical organizational climate, and unethical behavior," Personnel Psychology, vol. 73, no. 1, pp. 43–71, 2020.

[48] O. Demirtas and A. A. Akdogan, "The effect of ethical leadership behavior on ethical climate, turnover intention, and affective commitment," Journal of Business Ethics, vol. 130, no. 1, pp. 59–67, 2015.

[49] A. A. Alowais and A. Suliman, "Validation of the Emirati Higher Education Institutions Ethical Climate scale: A unidimensional approach based on Victor and Cullen's (1988) ethical climate theory," Businesses, vol. 6, no. 1, Art. no. 4, 2026, doi: 10.3390/businesses6010004.

[50] J. F. Hair, G. T. M. Hult, C. M. Ringle, and M. Sarstedt, A primer on partial least squares structural equation modeling (PLS-SEM), 3rd ed., Sage, 2022.

[51] J. Purcell and S. Hutchinson, "Front-line managers as agents in the HRM-performance causal chain: Theory, analysis and evidence," Human Resource Management Journal, vol. 17, no. 1, pp. 3–20, 2007.

[52] E. Appelbaum, T. Bailey, P. Berg, and A. L. Kalleberg, Manufacturing advantage: Why high-performance work systems pay off, Cornell University Press, 2000.

[53] M. R. Greenwood, "Ethics and HRM: A review and conceptual analysis," Journal of Business Ethics, vol. 36, no. 3, pp. 261–278, 2002.

[54] H. Zaim, A. Demir, and T. Budur, "Ethical leadership, effectiveness and team performance: An Islamic perspective," Middle East Journal of Management, vol. 8, no. 1, pp. 42–66, 2021, doi: 10.1504/MEJM.2021.111991.

[55] M. S. Jami, A. H. Massoudi, and Q. H. Al-Salami, "Ethical leadership role in job embeddedness and job involvement," Cihan University-Erbil Journal of Humanities and Social Sciences, vol. 7, no. 1, pp. 11–15, 2023, doi: 10.24086/cuejhss.v7n1y2023.pp11-15.

[56] H. S. Sekhon, D. Al-Eisawi, S. K. Roy, and A. Pritchard, "Service excellence in UK retail banking: Customers' perspectives of the important antecedents," International Journal of Bank Marketing, vol. 33, no. 7, pp. 904–921, 2015, doi: 10.1108/IJBM-10-2014-0136.

[57] M. Sarstedt, J. F. Hair, J. H. Cheah, J. M. Becker, and C. M. Ringle, "How to specify, estimate, and validate higher-order constructs in PLS-SEM," Australasian Marketing Journal, vol. 27, no. 3, pp. 197–211, 2019.

[58] C. Fornell and D. F. Larcker, "Evaluating structural equation models with unobservable variables and measurement error," Journal of Marketing Research, vol. 18, no. 1, pp. 39–50, 1981.

[59] J. Henseler, C. M. Ringle, and M. Sarstedt, "A new criterion for assessing discriminant validity in variance-based structural equation modeling," Journal of the Academy of Marketing Science, vol. 43, no. 1, pp. 115–135, 2015.

[60] P. M. Podsakoff, S. B. MacKenzie, J. Y. Lee, and N. P. Podsakoff, "Common method biases in behavioral research: A critical review of the literature and recommended remedies," Journal of Applied Psychology, vol. 88, no. 5, pp. 879–903, 2003.

[61] M. C. Howard, M. Boudreaux, and M. Oglesby, "Can Harman's single-factor test reliably distinguish between research designs? Not in published management studies," European Journal of Work and Organizational Psychology, vol. 33, no. 6, pp. 790–804, 2024, doi: 10.1080/1359432X.2024.2393462.

[62] N. Kock, "Common method bias in PLS-SEM: A full collinearity assessment approach," International Journal of e-Collaboration, vol. 11, no. 4, pp. 1–10, 2015, doi: 10.4018/ijec.2015100101.

[63] J. Cohen, Statistical power analysis for the behavioral sciences, 2nd ed., Lawrence Erlbaum Associates, 1988.